# **MARTIN AUTO MUSEUM & EVENT CENTER**



# A GUIDE to the CARS, Their HISTORY and the MEN WHO BROUGHT THEM INTO OUR LIVES.



Mel Martin founded Martin Auto Museum and Event Space in 2005 out of a need to share a collection of vehicles that represent significant periods in automotive history. He's pictured here with a 1948 Tucker 48.

Martin, 94, founded the museum out of a need to share a collection of vehicles that represent significant periods in



automotive history. After 12 years, Martin had more vehicles in storage than he did in the museum. That necessitated the move. The new location features more than 170 vehicles, including classic cars, hot rods, customs and imports. The museum also boasts one of the largest collections of auto memorabilia, antique gas pumps and signage anywhere. For children, there is a carousel tucked into the museum, as are driving and racing games.

The nonprofit museum has volunteers who have a wide variety of knowledge and experiences in the automotive industry.



When Mel Martin was 17, his greatuncle gifted him with a Douglas truck. After moving to Mayer, Arizona Mel opened his first repair garage and gas station.

Thus, began a lifelong love affair with the automotive world.



Mel has partnered with Mecum Auctions each of the six years it's been here. Martin has purchased cars and sold them.

"When they first came out here, they talked with me at the museum," Martin said. "I encouraged him to open up. The nice thing is you can walk up to Mr. Mecum and negotiate if you want to negotiate.

"They have a personal feel about the auctions. I was actually in the auction business for 25 years. We auctioned off salvage cars for insurance companies. So, I understand that part. They pay attention to the buyers and sellers. Mecum does a great job with that."

### Credits

Gene Sparks - Chief Historian / Photographer / Editor / Creator Instagram: <u>nothingbutwheels</u> Gerald Massey - Research Contributor Connor Stanley - Research Contributor / Photographer Rick DeBruhl - Content Creator and YouTuber YouTube Channel: <u>rickdebruhlcars</u> Joe Bridgewater - GM / Research Contributor Glenn Wollert - Editor Wikipedia ChatGPT google AI GROK powered by x:AI

Note: This is a living document and will be updated as new information is provided/acquired. Please submit updated information, corrections, or additions to Joe Bridgewater at mmamgmjoeb23@gmail.com and Gene Sparks at gene.sparks23@gmail.com.

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# **1936 Alvis Firebird Drophead Coupe**

The Alvis Firebird was a British touring car made between 1935 and 1936, and only 449 were made. The car has an aluminum body on an ash wood frame. As with other Alvis cars, the Firebird was built as a rolling chassis then sent to the coachbuilders Cross & Ellis, to be finished to the customer's requirements — so all Alvis Firebirds are different.



In 1939, World War II halted Alvis

car production to make aircraft engines. A German Luftwaffe bomb destroyed the Alvis car factory in 1940.

This is a frame-off, fully restored, and incredibly rare car. An aftermarket electric radiator fan was installed for the desert heat of Arizona. It is the only known right hand drive Firebird Drophead Coupe in the U.S.

The Specs...

- Production 1935 to 1936
- Assembly Coventry, England
- Sporting chassis, bodied to suit owner's requirements
- 1842 cc straight 4-cylinder engine
- 118.5-inch wheelbase





Lou Costabile My Car Story - Alvis

**Alvis Firebird Wikipedia** 

#### Revision May 20, 2025 rev U **1980 Auburn 866 Boattail Speedster (Replica)**

Auburn was a brand name of American automobiles produced from 1900 to 1937, most known for the Auburn Speedster models it produced, which were fast, good-looking and expensive. However, after the 1929 Wall Street Crash, and the economic downturn that ensued, Auburn's expensive automobiles, along with its also very expensive sister

marques Duesenberg and Cord, saw inevitable sales downturns, and all vehicle business halted in 1937.

After a 1940 bankruptcy reorganization, the former Auburn Automobile Co. merged with the Central Manufacturing Company into Auburn Central Manufacturing (ACM) Corporation, which received large amounts of World War II production work, so much so, that in 1943, they rebranded ACM as American Central Manufacturing. One of their most notable WW II contributions involved manufacturing the bodies of at least three quarters, or about half a million, of the World War II Willys and Ford 1/4-ton jeeps.

The original 1935 and 1936 Auburn Speedsters are some of the most soughtafter collector cars from the classic car era. With prices north of a half million dollars for







Concours quality cars, replica cars - or second generation - became popular.

Amenities such as power steering, power brakes, air conditioning and modern V-8 drive trains with independent suspensions were not available on the original cars, but they were on the more recent reproductions of the classic cars.



The Auburn Automobile Company was a luxury car manufacturer based in Auburn, Indiana. However, by 1937 the company was facing financial difficulties and was forced to close its doors. In 1938, Detroit entrepreneur Dallas Winslow purchased the remaining assets of the company, including the parts inventory, for \$85,000 and an additional \$25,000 for the Auburn administration building. He renamed the company the Auburn-Cord-Duesenberg Company (ACD Co.) and began operating it as a parts supplier for Auburn cars. The ACD Co. also offered service and restoration work at the original factory in Auburn, Indiana, using the expertise of former Auburn employees.

In the early 1960s, Oklahoma industrial arts teacher and Cord restorer Glenn Pray offered to buy the ACD Company. Pray was able to strike a deal with Winslow, and the remaining inventory of ACD parts were packed up and moved to Broken Arrow, Oklahoma. Pray also acquired the trademark names Auburn, Cord, and Duesenberg. The ACD Co. continued to offer parts and restoration work, but Pray had bigger plans. He wanted to put the 1936-1937 Cord back into production and he did just that. A newly engineered front-wheel-drive Modern Cord 8/10 was available from the ACD Co. in 1964, designed with the help of Gordon Buehrig, the car's original designer.

Glenn Pray's accomplishments and the Cord 8/10 story have been featured in many major publications, including Automobile Quarterly and Popular Mechanics Magazine. After Glenn's involvement with the Cord ended, he turned his attention to building a modernized version of the 1935/851-1936/852 Auburn Speedster. Engineering started in 1966, and the prototype Speedster was completed in April 1967. The first public showing was in August 1967 at the annual ACD Club meet in Auburn, Indiana. The car was then road-tested for 40,000 miles, and only minor modifications were needed for the production Speedsters. The new Auburn, known as the 866 Speedster, was made available to the public in 1968 and was priced at \$8,450. The 1968 production cars were equipped with a big block 428 Ford engine and came with either an automatic or four-speed transmission.

Functional supercharger-style exhaust pipes, power steering, power brakes, and air conditioning were just a few of the modern conveniences offered.

After Glenn Pray's death in 2011, the leadership of the Auburn-Cord-Duesenberg Company (ACD Co.) fell to his son, Doug Pray. Since then, Doug has worked tirelessly to rejuvenate the "pickle plant" and ensure that operations continue along with the legacy of the ACD Co. Most recently Glenn's Grandson and Doug's son, Adam Pray, has taken over the operations of the company to become the 3rd generation of Prays to lead the Auburn-Cord-Duesenberg Company.

Today, the ACD plant is a bustling hub of activity, with work continuing on dozens of restoration and repair projects involving various original Cord and Auburn models. The ACD Co. is still committed to offering some of the world's finest automobile restorations and is still the go-to destination for automobile enthusiasts worldwide seeking new old stock parts. The company's focus on quality, attention to detail, and dedication to preserving the legacy of these iconic brands have made it a leader in the automotive restoration industry. Under Adam Pray's leadership, the ACD Co. continues to be a vital part of the car community, dedicated to keeping these classic cars on the road and preserving their legacy for future generations.

The Auburn Cord Duesenberg Company, located in Broken Arrow, Oklahoma, put the Auburn Speedster back into production in 1968. Their cars were referred to as Auburn 866 Speedsters. The "8" was in keeping with Auburns original 8-cylinder series of cars and the "66" from the year 1966 when the engineering started on the New Speedster. The 866 Speedsters were built from 1968 through 1981.

Specs...

- Buick 350 cubic-inch V-8 engine
- Single 4-barrel carburetor

# 1978 Avanti II

The Avanti (including the Avanti II) is an American performance sports coupe based on the Studebaker Avanti and marketed through a succession of five different ownership arrangements between 1965 and 2006.

Subsequent to Studebaker's December 20, 1963, closure of its South Bend factory and effective discontinuation of the auto with the 1964 model year, cars carrying the Avanti nameplate were initially produced from left-over Studebaker components, and later by the Avanti Motor Company from General Motors and Ford chassis and engines. A small and often interrupted stream of increasingly modified cars were made before all production ceased in 2006.

### **Altman and Newman**

After Studebaker ended production at South Bend on December 20, 1963, the "Avanti" model name, tooling, Studebaker truck production rights and parts and plant space were bought by local Studebaker dealers, Nate and Arnold Altman and Leo Newman, who incorporated as Avanti Motor Corporation and hand-built a small number of cars. Leo Newman ran the Studebaker truck parts



division which enabled the company to be profitable at its outset. According to Stu Chapman, Studebaker Director of Advertising & Public Relations 1964–1966, in his book 'My Father The Car: Memoirs Of My Life With Studebaker', there was talk with Studebaker of reintroducing the Avanti to

Studebaker showrooms in 1965/66, along with ambitious plans for rebadging an Isuzu Bellett as an entry level Studebaker, and combining with Canadian Motor Industries.

The Altman brothers introduced a slightly modified version of the car in 1965 under the brand name "Avanti II". which initially had a 327 cu in (5.4 L) Chevrolet Corvette engine. This evolved to the 400, then the small-block 350, and then the 305 for 1981. The 305 cu in (5.0 L) V8 had electronic engine controls, 155 hp (116 kW), and GM's



Turbo 350 automatic transmission with lock-up. Building one of the 1980s Avanti IIs required 10 to 12 weeks, depending on special color or upholstery orders. The last Avanti II made came off the line with a V6 engine from Roush and only one was made. After Nate Altman's death, Arnold Altman ran the company until it was sold in 1982. From 1963 to 1985, Avanti IIs were built on the Studebaker-designed chassis, then the Chevrolet Monte Carlo chassis was used; Chevy discontinued the Monte Carlo in 1987, and Avanti switched to the Chevrolet Caprice chassis.

### **Stephen Blake**

On October 1, 1982, real-estate developer Stephen H. Blake bought the rights to the Avanti II. The state of Indiana guaranteed \$1.9 million in loans to Avanti, as part of the financial package offered Blake when he bought the company.

Modifications were introduced to the car, which had remained unchanged since the production of the Avanti II model began in the mid-1960s. A new convertible body style along with an all-new and lighter backbone chassis that was designed by Herb Adams, a former Pontiac engineer, using a torque tube with a 1985 Chevrolet Corvette aluminum rear end and independent suspension. Rectangular headlight openings and plastic body-colored bumpers were introduced. Each of these cars took eight to ten weeks to hand build. Blake's company declared bankruptcy and he resigned in February 1986.

### **Michael Kelly**

The Avanti Motor Company was purchased by Michael Eugene Kelly. The "II" was dropped from the car's name and all subsequent cars were called the "Avanti". The company then had second-generation Avanti styling originated by Tom Kellogg, the youngest member of the original Studebaker Avanti design team.

### John Cafaro

The company was acquired and run from 1987–1991 by John J. Cafaro with the financial assistance of the State of Ohio, he moved all Avanti production from South Bend – its birthplace – to Youngstown, Ohio. In 1988 and 1989 Avanti made two-door coupes and a convertible. The 1988 Avanti were called the "Silver Year" models, marking 25 years since the Avanti's introduction.

In 1989, Cafaro lost faith in the original coupe and introduced a four-door version, of which 90 were built. In four years, only 405 Avanti were made at the Youngstown plant, which closed in 1991.

## Michael Kelly (repurchase)

Kelly repurchased the company in 1999. He moved its operations from Ohio to Georgia and produced redesigned Avanti automobiles in Villa Rica from 2000 to 2005. From 2004, Ford Mustang chassis and engines were used. In October 2005 an internet report said "Avanti Motors [had] recently announced a new relationship with Ford Motor Company and was planning a big comeback".

In early 2006, Kelly moved Avanti production to a new plant in Cancun, Mexico, but the company foundered after Kelly's arrest on fraud charges in December 2006, over a large Ponzi scheme he was running. The last Avanti rolled off the line in Cancun, Mexico in March 2006. All the Mustang-based Avantis used V8 engines, with the option of a Ford V6. Only one 2006 Avanti was built with a Ford V6 engine. The factory and showroom were emptied in 2011 and have been sold. Many extremely rare Studebaker and Avanti concepts and racing vehicles that were on the second floor of the building in Cancun have been moved elsewhere and/or sold.

### Specs...

- \$15,970 MSRP in 1978 (equal to \$76,011 in 2024)
- Engine: 350 ci (5.7 L) Small Block Chevy OHV, 90° V8, 8.5:1 Compression, Rochester 4-barrel carburetor

- Bore: 4.0 in (101.6 mm) Stroke: 3.48 in (88.39 mm)
- Power: 180 hp @4,000 rpm, 270 lb-ft @2,400 rpm, Maximum rpm: About 4,500 rpm
- Transmission: 4 speed manual, 3.31:1 axle ratio
- Curb Weight: 3,400 lb. (1,542 kg)
- Performance: 0-60 mph: 9.3 seconds, 1/4 mile: 16.9 seconds @82 mph Top speed: 116 mph (176 kph), 124 mph (200 kph) with longer gearing

# 1886 Benz Motorwagen (Replica)

The Benz Patent-Motorwagen (built in 1885), is widely regarded as the world's first piston-powered production automobile. On January 29, 1886 Karl Benz patented the three-wheeled Patent-Motorwagen (patent number 37435). Later in the same year, just 60 miles away, Gottlieb Daimler patented an internalcombustion engine and began with the construction of a fourwheeled horseless carriage. **Neither Benz nor Daimler were** aware of the other's work.

Karl's wife Bertha Benz, whose dowry financed their enterprise, was aware of the need for publicity. She took the Patent-Motorwagen No. 3 and drove it on the first longdistance internal combustion automobile road trip to demonstrate its feasibility. She took her sons Eugen and



Richard, fifteen and fourteen years old, on the 121-mile trip in August 1888. As well as being the driver, Benz acted as mechanic on the drive, cleaning the carburetor with her hat pin and using a garter to insulate wire. She refueled at a local pharmacy along the route, taking on ligroin as fuel, making it the first filling station in history. As the brakes wore down, Benz asked a local shoemaker to nail leather on the brake blocks, thus inventing brake linings.

In commemoration of the 100-year anniversary of the Benz Patent-Motorwagen, Mercedes-Benz produced a series of fully functioning replicas of the Benz Patent-Motorwagen, mainly for dealer exhibits.

#### The Specs...

- 9 horsepower engines at 400 pm
- Total loss oiling system
- Steered by a tiller, not a steering wheel
- Top speed of 12 mph
- Chain drive on both sides

### Watch these two re-enactments of the 1<sup>st</sup> journey





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Patentirt im Deutschen Reiche vom 29. Januar 1866 ab. Vorliegende Construction bezweckt den Beeb hauptstichlich leichter · Fuhrwerke und condensirt und treten w

Autor Schnie, wie sonde zu beiohering Auf der belliegenden Zeichnung ist ein kleinet Wagen nach Art der Trivycks, für 2 Personen erbaut, dargestellt. Ein kleiner Gasmotor, gleichviel welchen Switern, dietn als Triebkraft. Derselbe erhält sein Gas aus einem mitzuführenden Apparat, in welchem Gas aus Ligroin oder anderen vergasenden Stoffen erzeugt wird. Der Cylinder des Motors wird durch Verdampfen von Wasser auf gleicher Temperatur gehahten.

Der Motor ist in der Weise angeordnet worden, daß sein Schwungrad in einer horizontalen Ebene sich dreht und die Kraft durch zwei Kegelräder auf die Triebräder übertragen wird. Hierdurch erreicht man nicht nur vollständige Lenkbarkeit des Fahrzeuges, sondern auch Sicherheit gegen ein Umfallen desselben beim Fahren kleiner Curven oder bei Hindernisen auf den Fahrzeufen

Die Köllung des Arbeitscylinders des Motors geschieht durch Wasser, welches die ringformigen Zwischenratume usfüllt, Gewöhnlich läfst man das Kalhwasser bei Gasmotoren mit geginger Geschwindigkeit durch den Cylinder sich bewegen, indem das kalte unten für und das erwärmte oben abfliefst. Es ist aber dazu ein großer Wasservorrath nöthig, wie inn leichte Fuhrwerke zu Land nicht gut mitfahren können, und daher folgende Einrichtung getroffen worden: Das Wasser um den Cylindes verdampft. Die Dümpfe streichen durch das oberhalt des Cylinders angebrachte Rohr-

system 1, werden dort zum größten Theil condensirt und treten wieder als Wasser unten in den Cylinder ein. Der nicht condensirte Dampf entweicht durch die Oeffnung 2.

Das zum Betrieb des Motors nöthige Gas wird aus leicht verdunstenden Oelen, wie Ligroin, "dargestellt. Um stess ein gleichmäßiges Gasgemenge zu erhalten, ist er nöhäg, das neben dem gleichmäßigen Luftarutrit und er gleich hohen Temperatur des Ligroins auch der Stand des letzteren im Kupferkessel 4 ein möglichst gleicher sei, und ist zu diesem Zweck der Vorathabehälter 3 mit dem Kupferkessel 4 durch eine enge Röhre 6, die in ein weitse Wasserstandgals 7 mitdet, verbunden. An der Röhre ist ein kleiner Hahn 8 angebracht, um den Zuflufs nach Bedarf regulien zu können. Durch die Glastoftre ist das tropferwicks Eintreten des frischen Ligroins wahrzunehmen und zugleich der Stund desseben im Apparat zu controlften.

Das Ingangsetzen, Stillhalten und Bremsen des Fuhrwerkes geschieht durch den Hebel 9. Der Motor wird, bevor man den Wagen besteigt, in Bernieb gebracht. Dabei sitch der Hebel f Mitte. Will man das Fuhrwerk in Bew ing setzen, so stellt man den Hebel 9 nach wärts, wodurch der Treibriemen vom Leerlaui auf die feste Scheibe geschoben wird. Beim Anhalten bewegt man den Hebel 9 wieder auf Mitte, und will man bremsen, so drück man ihn über Mitte rückwärs. Der ausgerückte Riemen bleibt dabei in seiner ausgerückte Riemen bleibt dabei in seiner Um zu bewirken, dafs, wenn der Riemen auf Leerlauf zestellt ist, derselbe bei weiterer Rück

# 2015 BMW i8 Hybrid Coupe

The BMW i8 is a plug-in hybrid sports car that was part of BMW's electrified fleet. The production version of the BMW i8 was unveiled at the 2013 Frankfurt Motor Show and was released in Germany in June 2014. Deliveries to retail customers in the U.S. began in August 2014. Production ended in June 2020.

The 2015 BMW i8 accelerates from 0 to 62 mph in 4.4 seconds and has an electronically limited top speed of 155 mph. The 2015 model has a 7.1-kWh lithium-ion battery pack that delivers an all-electric range of 23 miles. The US Environmental Protection Agency (EPA) rated the driving range at 15 miles in electric vehicle mode.

The EPA rated the i8 fuel economy at 76 miles per gallon (mpg) in hybrid mode and 29 mpg in pure gasoline mode.

By March 2020, global sales of all variants had reached more than 20,000 cars, making the BMW i8 the world's top-selling plug-in electric sports car.

Standard features include 20-inch wheels, cross-drilled and ventilated disc

brakes, adjustable suspension, LED exterior lighting with BMW i "Ushaped" daytime running and brake lights, automatic high beam headlights, auto engine start-stop, an around-view camera view system, keyless entry and ignition, power front seats with memory, leather upholstery, and a leatherwrapped steering wheel. Technology







highlights include a navigation system with real-time traffic info, Bluetooth phone connectivity, BMW's iDrive interface, BMW Assist with remote smartphone app capability, BMW Online and Apps, and a Harman Kardon sound system with hard disk storage and USB and aux inputs.

Specs...

- 1.5 liter inline 3-cylinder engine
- 375 horsepower
- 6-speed automatic transmission
- All-wheel drive
- 110.2-inch wheelbase
- 5,456 were sold worldwide in 2015, of which 2,265 were sold in the US
- Scissor doors swing upwards when opened
- New price starting at \$136,500



#### History

First introduced as the Concept Vision Efficient Dynamics, the i8 was part of BMW's "Project i" and was marketed as a new brand, BMW i, sold separately

from BMW or Mini. The BMW i3, launched for customers in Europe in the fourth quarter of 2013, was the first model of the i brand available in the

market, and it was followed by the i8, released in Germany in June 2014 as a 2015 model year. Other i models were expected to follow.

The initial turbodiesel concept car was unveiled at the 2009 International Motor Show Germany, In 2010, BMW announced the mass production of the Vision Efficient Dynamics concept in Leipzig beginning in 2013 as the BMW i8. The BMW i8 gasoline-powered concept car destined for production was unveiled at the 2011 Frankfurt Motor Show. The production version of the BMW i8 was unveiled at the 2013 International Motor Show Germany. The following are the concept and pre-production models developed by BMW that preceded the production version. When BMW i sponsored the ABB FIA Formula E World Championship, they announced that they would provide support vehicles; the i8 operated as the official safety car.

### Rick DeBruhl's Commentary - "The BMW i8 makes electricity look good



# **1959 Bristol AC Ace Roadster**

This vehicle was the 46th Bristol Roadster built in model year 1959. London-based AC Cars, LTD, produced these vehicles from 1956 through 1963. There was a total of 463 produced during this eight-year period with an original list price of \$5,649.

When Bristol ceased building their 6-cylinder engine in 1961, AC's owner Charles Hurlock was approached by Carroll Shelby to use a Ford V-8 in the Ace chassis, producing the AC Cobra in 1962. Production of the Ace ended the same year.

Mel Martin acquired this vehicle in 1977. It remained in storage until late 2006, when the restoration process was started.

The Specs...

- Production 1953 to 1962
- Produced: 732
- Orig. Price: \$5,650
- 1,971 cc engine
- 125 horsepower
- 4-speed transmission
- 4-wheel independent suspension
- Front disc-brakes







## HISTORY

AC Ace is a car which was produced by AC Cars of Thames Ditton, England, from 1953 until 1963. About 220 AC Aces and 466 Ace-Bristol cars were produced during its 10-year run.

AC came back to the market after the Second World War with the 2-Litre range of cars in 1947, but it was with the Ace sports car of 1953 that the company really made its reputation in the post war years. Casting around for a replacement for the ageing 2-Litre, AC took up a design by John Tojeiro that used a light, ladder-type tubular frame, all independent t

Transverse leaf spring suspension, and an open two-seater alloy body made using English wheeling machines, possibly inspired by the Ferrari 166 MM Borchetta.

Early cars used AC's elderly 100 bhp (75 kW) two-liter overhead cam straight-six engine (first seen soon after the end of the First World War), which, according to a 1954 road test by Motor magazine, gave a top speed of 103 mph (166 km/h) and 0–60 mph (0–100 km/h) in 11.4 seconds and a fuel consumption of 25.2 miles per imperial gallon (11.2 L/100 km; 21.0 mpg). It was hardly a sporting engine however, and it was felt that something more modern and powerful was required to put the modern chassis to good use.

Joining the Ace in 1954 was the Aceca hard top coupé, which had an early form of hatchback rear door but used the same basic timber framed alloy body.

From 1956, there was the option of Bristol Cars' two-liter 120 bhp (89 kW) straight-six with 3 downdraught carburetors and slick four-speed gearbox. Top speed leapt to 116 mph (187 km/h) with 0–60 mph (0–100 km/h) in the nine second bracket. Overdrive was available from 1956 and front disc brakes were an option from 1957, although they were later standardized. 1962 2.6-litre Ruddspeed-engined Ace

In 1961 a new 2.6-litre (2,553 cc (155.8 cu in)) straight-six 'Ruddspeed' option was available, adapted by Ken Rudd from the unit used in the Ford Zephyr. It used three Weber or SU carburetors and either a 'Mays' or an iron cast head. This setup boosted the car's performance further, with some versions tuned to 170 bhp (127 kW), providing a



top speed of 130 mph (209 km/h) and 0–60 mph (0–100 km/h) in 8.1 seconds. However, it was not long before Carroll Shelby drew AC's attention to the Cobra, so only 37 of the 2.6-liter models were made. These Ford engine models had a smaller grille which was carried over to the Cobra.

For the Ace as well as the Aceca, AC used chassis numbers beginning with AE for AC-engine cars, BE for Bristol-engine ones, and RS for those

equipped with the Ford unit. An "X" following the first two letters indicated an export model. With the engine set well back in the chassis, the Ace handled well and was successful in competition.

When Bristol ceased building their 6-cylinder engine in 1961, AC's owner, Charles Hurlock, was approached by Carroll Shelby to use a Ford V8 in the Ace chassis, producing the AC Cobra in 1962. Production of the Ace ended the same year. The AC Cobra came in small block and later big block configurations. It was Ford's 289 that powered the winning car in the GT class at Le Mans in June 1964. At the time, the AC Cobra 427 was the fastest "production" car in the world.

# 1950 - 60 Bucket T (actual date not known)



Model Ts were hot-rodded and customized from the 1920s on, but the T-bucket was specifically created and named by Norm Grabowski in the 1950s. This car (picture here) was named Lightning Bug, better known as the Kookie Kar, after being redesigned by Grabowski and appearing in the TV show 77 Sunset Strip, driven by character Gerald "Kookie" Kookson. The

exposure it gained led to numerous copies being built.

A genuine T-bucket, like the Martin Museum car pictured here, has the twoseater body of a Model T roadster (with or without the turtle deck or small pickup box), this "bucket"-shaped body shell giving the cars their name. A Model T-style radiator is usually fitted, and even these can sometimes be barely up to the task of cooling the large engines fitted. Windshields, when fitted, are vertical glass like the original Model T.



Today, T-buckets remain common. They generally feature an enormous engine for the size and weight of the car, generally a V8, along with tough drivetrains to handle the power and large rear tires to apply that power to the road. The front wheels are often much narrower than the rear wheels, and are often motorcycle wheels.

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shell giving the cars their name. A Model T-style radiator is usually fitted, and even these can sometimes be barely up to the task of cooling the large engines fitted. Windshields, when fitted, are vertical glass like the original Model T.

Most are built purely for street or show use, and the big engines are more for show than for need — many are more powerful than the vehicles can actually make use of. Although the body shell is original in appearance, engines of a wide variety of makes are commonly used. The smallblock Chevrolet is a common choice, since it is relatively small, light, easy to obtain and to improve, and performs well. Four-cylinder engines are common also, especially if the car is used regularly. Many install blowers (superchargers) on their engines, and people use modern fuel-injected engines.

Other examples of Bucket "T"s



Specs...

# **1928 Buick Master Six Coupe**

### This vehicle was donated to the Martin Auto Museum by Drue Nixon.

The Buick Master Six was built from 1925 to 1928. Buick coined the name "Master Six" for the high-end cars powered by a 77-horsepower engine released the year before. The Master Six was available on a 120-inch or 128-inch platform. Both Buick's Standard Six and Master Six were dramatically restyled for 1928.

They were given plain crown fenders, bullet-



type headlights, sculpted cowl, hood and radiator contours and a reconfigured chassis which allowed the bodies to be built lower. Engineering advances also accompanied the 1928 models, with such improvements as an Hpattern shifter, hydraulic shock absorbers and a revised valve design. Buick produced 102,409 of the Master Six models in 1928.



Specs...

- 239 cubic-inch engine
- 77 horsepower
- 3-speed transmission
- 3,466 pounds

# **1933 Buick Series 90 Limousine**

This Buick Series 90 Limousine was formerly owned by Queen Wilhelmina of the Netherlands. The body was designed and made by the Queen's Carriage maker, Bronkhorst, reportedly for use in funerals and other formal royal events. The Buick Series 90 Limousine is a rear-wheel-drive limousine passenger car with a front positioned engine, sold by Buick

### The Specs...

- 344.8 ci (5.6L) OHV Inline 8 Cylinder Engine
- 113 horsepower
- 3-speed manual transmission











## Wikipedia - Buick Series 90



## Wikipedia - Queen Wilhelmina



## TOTAL SPECS & FEATURES Specs:

- 344.8 ci (5.6L) OHV Inline 8 Cylinder Engine, 4.8:1 Compression, 2-barrel updraft Marvel carburetor
- Bore: 3.3125 in (84.14 mm) Stroke: 5 in (127 mm)
- 113 hp @3,200 rpm, 261 lb-ft @1,600 rpm, Maximum rpm: About 3,700 rpm
- 3 speed manual (synchronized 2nd and 3rd gear), 4.36:1 axle ratio
- ~4,800 lb (2,177 kg) curb weight
- Performance (Estimated):
- 0-60 mph: 18 seconds
- 1/4 mile: 21.1 seconds @64 mph
- Top speed: 75-80 mph (121-129 kph)
- Cost about \$2,055 in 1933 (equal to \$48,872 in 2024)

## Features:

- Roller cam and lifters
- Oil filter and temperature regulator
- Hand throttle on steering wheel
- "Power Clutch" mechanism, allowing the clutch to be disengaged with a button on the floor (using engine vacuum to hold the clutch)
- Two-plate dry disc clutch
- Dash mounted starter button
- Steering wheel lock
- Semaphores (turn signals) added for use in Europe
- Metric (kph) speedometer/odometer (with about 68,000 kilometers, or 43,300 miles)
- Interior dividing window with speaking hole
- Silk rear seats and interior (the rear seat cushions have been redone due to wear, and are no longer silk)
- One of only 338 Buick limousines made in 1933

### **1936 Buick Special Series 40 4-Door** This Buick Special was driven by our founder and Chairman, Mel Martin, in the 1997 Great Race from Sonoma, California, to Jacksonville, Florida.

The Buick Special was usually Buick's lowest-priced model, starting out as a full-size car in 1936. The Special was built for several decades and was offered as a coupe, sedan and later as a station wagon. The 1936 model year was very successful for Buick and marked the first time Buick used model names rather than the simple serial numbers used in previous years.

The 1936 models were restyled with turret top bodies, vee-type windshields, wedge-shaped radiators, bullet-shaped headlights, and twin taillamps. New mechanical improvements included the hydraulic brakes, an independent front suspension, improved water temperature control, and new alloy pistons.

The combined Series 40 Special production for 1936 was just over 113,000 cars accounting for





approximately 67% of Buick's total production that year. This Buick Special was driven by our founder and Chairman, Mel Martin, in the 1997 Great Race from Sonoma, California, to Jacksonville, Florida.

The Specs...

- 233 cubic-inch straight & engine
- 93 horsepower
- 118" wheelbase
- 3-speed transmission
- 4-wheel hydraulic brakes

### Series 40 (1930, 1934 - 1935)

When the Series 40 was introduced, it had the 257.5 cu in (4,220 cc) overhead valve Buick Straight-6 engine that produced 80.5 bhp of power at 2,800 rpm, and 74,257 examples were made, being the highest number of Buicks for 1930. For the year 1931, the Series 40 was temporarily discontinued, with the introduction of the Marquette Model 30 and the Series 50 being repositioned as the Buick entry level product. The 1935 version returned with the 233.0 cu in (3,818 cc) Buick Straight-8 engine and 93 bhp. Starting with this generation, all GM cars shared a corporate appearance as a result of the Art and Color Section headed by Harley Earl and modest yearly changes were introduced to freshen the appearance.

1933 was the first year all GM vehicles were installed with optional vent windows which were initially called "No Draft Individually Controlled Ventilation" later renamed "Ventiplanes" which the patent application was filed on Nov. 28, 1932. It was assigned to the Ternstedt Manufacturing Company, a GM subsidiary that manufactured components for Fisher Body and they were added to the Special when it was introduced in 1935. Additional manufacturing locations also opened across the country under the Buick-Oldsmobile-Pontiac Assembly Division. The Series 40 was the most affordable Buick offered, with 6 body styles offered, and the five passenger Sedan Model 41 was US\$925 (\$20,557 in 2023 dollars), while a LaSalle Series 50 was US\$1,000 (\$22,776 in 2023 dollars) more. A standard feature offered on all Buicks was a dashboard mounted selector handle that would alter spark timing and allow either low grade or premium fuel to be used. In 1936 the name changed to "Special".

## Series 40 (1936 - 1942, 1946 - 1949)

Starting with 1936, the Buick Special Series 40 model range represented the marque's entry level full-size automobile. The '36 was a very successful year for Buick and also marked the first time of using names rather than the simple serial numbers which had been in use before. The first Specials rode on a 118 in (3.0 m) wheelbase, but for the next model year this was increased to 122 in (3.10 m) as all Buicks grew for that year. The eight-cylinder engine was also new, and was now of 248 cu in (4.1 L) rather than 233 cu in (3.8 L). The Special (and all other Buicks as well) underwent a full restyling for 1939, with a more enclosed nose and a wider grille. The wheelbase was also two inches shorter.

For 1940, there was the usual restyle and the wheelbase increased by an inch. This was also the only model year that a four-door convertible Special

("Sport Phaeton") was offered, although only 552 were built. Prices started at US\$795 (\$17,456 in 2023 dollars) for the Business Coupe to US\$925 (\$20,310 in 2023 dollars) for either the 4-door Touring Sedan or 2-door Convertible.

For 1941 the bodywork was again all new, with the front fenders now very closely integrated into the cars overall design. The Estate Wagon migrated from being a Super into the Special lineup. A fastback was offered in Century and 40 Special trim as a four-door touring sedan and two-door business coupe and the 46S sedanette. Also new was the 40-A series (the regular Special now being the 40-B), a version on a three inches shorter wheelbase which shared its body with the 1941 Oldsmobile Series 70. These two series, with a restyle reminiscent of the 1939 Y-Job, continued into the abbreviated 1942 model year. Production ended on 4 February 1942. The Special was now offered as the entry-level luxury vehicle that the LaSalle previously held.

After production resumed, only the larger 1946 B-body Special range remained available, which is rare, representing less than two percent of Buick's production that year. The Special continued with minor changes until the prewar body was finally replaced halfway through the 1949 model year. Post-war Specials were only available as a four-door sedan or a twodoor "sedanet", until the new 1949 models arrived.

In the movie Mildred Pierce, Veda Pierce, Mildred's daughter, played by actress Ann Blyth, was given a 1940 Buick Special convertible as a gift, valued at US\$1,077 for the Model 46C (\$23,423 in 2023 dollars).

The movie Small Town Conspiracy features a 1939 Buick Special 8 that the main character of the film John Haleran (Zen Gesner) drives as his official police car. The car remained the property of director Ralph Clemente and was untouched for many years until sold to Florida restorer and car collector Axel Caravias.

# **1948 Buick Super Convertible**

The Buick Super is a full-sized automobile produced by Buick from 1940 through the 1958 model years, with a brief hiatus from 1943 through 1945. The first generation shared the longer wheelbase with the top level Roadmaster while offering the smaller displacement engine from the Buick Special. The Super prioritized passenger comfort over engine performance and was replaced by the Riviera in 1963.



For several years, it was called the "Buick Eight" or "Super Eight" due to the engravement on the grille while all Buicks since 1931 were all installed with the Buick straight-8 engine with varying engine displacement. Combining big Roadmaster room with an economical Special engine continued to make the Super an American favorite.

New wider and lower bodies were offered, and "Airfoil" front fenders that flowed into the lines of the rear fenders were introduced on convertibles and Sedanet Fastback models. The Super had new front fender trim featuring parallel chrome strips.

Specs...

- 248 cubic-inch, straight-8 engine
- 110 horsepower
- 3-speed transmission
- Total sales in 1948 were 108,521

Buick Super (1942, 1946 - 1948)

The 1942 Super coupes adopted the appealing Sedanet fastback style that had been the sensation of 1941 on Century and Special. New wider and lower bodies were offered and "Airfoil" front fenders that flowed into the lines of the rear fenders were introduced on convertibles and sedanet models. The Super had new front fender trim featuring parallel chrome strips. Also featured for 1942 was a handsome new grille with a lower outline and thin vertical strips. A feature shared with other Buicks was a new interior air intake positioned near the front center grille that eliminated the old cowl-level ventilator. The number of body styles was reduced to three with the elimination of the one year only Business coupe.
After the government prohibited the use of chrome on January 1, 1942 a number of body styles were dropped and most trim was now painted. Cast iron pistons were used in the 248 cu in (4.1 L) Fireball straight-eight engine. The last of the 1942 Buicks were completed on February 4, 1942. Only 33,034 Supers were built in the abbreviated model year.

In 1946 Buick once again combined the large Series 70 Roadmaster body with the economical Series 40 Special powerplant to create the Series 50 Super line. Basic styling was continued from 1942 now sedans had the front fender sweep across the doors to the rear fenders as did the Sedanet and convertible styles. A stamped grille with vertical bars dominated the frontal ensemble. Single stainless body trim lines began on the front fenders and ended at the rear edge of the standard rear wheelhouse shields. Standard equipment included an automatic choke, clock, ash receiver, turn signals and a painted woodgrain instrument panel. Exterior series identification was found on the crossbar between the bumper guards front and rear. Cloisonne emblems carried the Super emblem. Compound Carburetion was eliminated and the compression ratio was reduced to 6.30:1. As a consequence the 1946 Super's horsepower fell from 125 to 110. Torque on the other hand was hardly affected. The number of body styles increased to four with the return of the Estate wagon after a six-year absence. A total of 119,334 units were sold. The front suspension was independent with coil springs. 76.98% of Buick sales this year were Supers.

Combining big Roadmaster room with an economical Special engine continued to make the Super an American favorite in 1947. The Super was little changed from its 1946 counterpart, except for new stamped grille that had separate upper bar and new emblem. Stainless lower body moldings made a single line along the body and continued onto the standard wheelhouse shields. A white Tenite steering wheel was standard while the instruments were round and set into a two-toned dash panel. Exterior series identification was found on the crossbars between the standard bumper guards. A chrome emblem was used with the series script embossed and filled with red. Sales reached a record 159,588. The height was 64.9 inches. Brakes were 12-inch drums.

The main external change to the 1948 Super from its 1947 counterpart was the "Super" script on each front fender. Other series identification continued to be earned on the bumper guard crossbar. The car was a bit lower than in 1947 rolling on new 7.60 x 15 tires mounted on wheels with trim rings and small hubcaps. Super script was also found on the center crest of a new black Tenite steering wheel. New cloth interiors featured leatherette scuff

pads and trim risers. The instrument panel was redone, using silver-tone instruments on a two-tone gray panel. The sedan was carpeted in the rear with a carpet insert also found in the front rubber mat. The convertible also featured cloth and leather interior trim with power top, seat and windows standard. Total sales were 108,521.

**Rick DeBruhl Commentary - "Best Buick Ever?"** 



## **1954 Buick Skylark Convertible**

Details of a 1954 Buick Skylark model # 100; Vehicle Id # 7A1137484, cowl tag # 819 of only 836 model 100 Skylarks manufactured at the Flint, Michigan plant in 1954.

In the past 30 years it was selected as the AACA Junior Award winner at Tempe, Arizona, first place awarded at Los Angels annual 53/54 Buick Skylark meet, the same in Seattle Washington, 100-year anniversary at Flint, Michigan, and Tucson, Arizona. This Skylark was first bought new from the Pueblo Colorado Motor Company by Joe Wilberforce. One year later his job with the Army transferred him to San Pedro California. He was a 4 times wounded G I in WW 2. Joe vowed never to sell this car; it was to be a keeper along with 5 other cars he eventually bought new.

The "Cars of the Stars" Museum acquired the Skylark later and when they closed down their business, Brian Jackson, son of Russ Jackson, (Barrett Jackson Auctions) bought it and for the next 22 years it was stored at their Washington





Street yard. I bought it from his mother, the administrator of Bryan's estate. At that time, it still had the California pink slip and the black license plates #HZG 395. The California tag #6158716 indicates it was last registered in 1966. The odometer indicated 31,000 original miles when I bought the Skylark.

In addition, I will be donating a spare rebuilt 1954 Buick Dynaflow transmission, work completed by Ira Gentry Transmissions. A complete but disassembled 1954 Buick engine and a used Skylark windshield, and all accumulated 1954 Buick Skylark materials. The Buick Skylark is a passenger car formerly produced by Buick. The model was made in six production runs, during 46 years, over which the car's design varied dramatically due to changing technology, tastes, and new standards implemented over the years. It was

named for the species of bird called *skylark*.

The Skylark name first appeared on a limited production luxury convertible using the Buick Roadmaster's chassis for two years, then was reintroduced in 1961 as a higher luxury content alternative to the entry-level Buick Special on which the Skylark was based upon. It was then positioned as Buick's luxury performance model when the Buick GSX was offered. As GM began downsizing during the late 1970s, the Skylark became the entry-level model when the Special nameplate was used as a trim package designation, then in the 1980s was offered as a front-wheel-drive vehicle where it was both a coupe and sedan for three different generations.

The 1954 Skylark had radically restyled styling unique to the Buick line,<sup>[5]</sup> which included wheel cutouts that could be painted in a contrasting color to the body's. The trunk was sloped into a semi-barrel, and tail lights moved to large chromed fins projecting atop the rear fenders.

Re-designated model 100, the car was based on the all-new shorter Century/Special series 40 chassis and not the larger series 60 Roadmaster/Super chassis, also all-new for 1954. Once again, all Skylarks were built as 2-door convertibles and carried the same luxury equipment as before, but front leg room dropped 2.4 inches (6.1 cm). While smaller and lighter, the Skylark received a performance boost by retaining the big Buicks' powertrain, an evolutionary improvement of 1953's with the highest output in the division's lineup.

The 1954 Skylark once again had unique sheet metal stampings for its elongated wheel cutouts and new semi-barrel trunk, though fabrication was done without hand labor. The hood ornament was unique, adopted the following year across the Buick product line. Sales proved to be poor, reflecting the Skylark's continued high price of US\$4,843 (\$54,947 in 2023 dollars) coupled with a perceived step-down from the Roadmaster/Super series using the Century's chassis, slumping far enough to cause the model's cancellation at the end of the 1954 model year, with only 836 being manufactured. Specs...

Engine: 322ci Fireball V8

Dimensions:

- Wheelbase 121.5 in
- Length 207.6 in
- Width 79.9 in
- Height 58.9 in
- Curb weight 4395 lbs

### Revision May 20, 2025 rev U 1969 Buick Skylark GS Convertible 2nd Generation

The Buick Skylark is a passenger car formerly produced by Buick. The model was made in six production runs, during 46 years, over which the car's design varied dramatically due to changing technology, tastes, and new standards implemented over the years. It was named for the species of bird called skylark.



The basic Skylark was available as a two-

door hardtop coupe or a four-door sedan. The Skylark Custom came as a two-door convertible coupe, two-door hardtop coupe, four-door hardtop sedan, or four-door sedan.

For 1969, a locking steering column with a new, rectangular ignition key became standard on all 1969 GM cars (except Corvair), one year ahead of the Federal requirement. Buick dropped the Skylark brand after 1998.

Specs...

- 350 cubic-inch V-8 engine
- 2-barrel Rochester carburetor
- 340 horsepower
- 3-speed Turbo-Hydramatic automatic transmission
- 112-inch wheelbase
- Only 1,776 Skylark GS convertibles were produced in 1969

## Buick Skylark Second Generation (1968 - 1972)

The 1968 model year was one of significant change for the Buick Skylark. Although still using the same basic chassis, all of GM's mid-sized cars adopted a policy of using two different length wheelbases. Two-door models used a shorter wheelbase of 112 in (2,845 mm), while four-door models used a longer wheelbase of 116 in (the Buick Sport Wagon and Oldsmobile Vista Cruiser used an even longer wheelbase of 121 in). All of GM's mid-sized cars received all-new sheet metal, incorporating a semi-fastback appearance, which was a revival of a streamlining on all GM products from 1942 until 1950 as demonstrated on the Buick Super Club Coupe (sedanette), that showed influences from the restyled Riviera. More Federally mandated safety features improved

occupant protection and accident avoidance, including side marker lights, shoulder belts (on all models built after January 1, 1968), and parking lights that illuminated with headlights.

The Buick Gran Sport, previously an option package available on the Skylark, became a separate series, starting with the 340 hp/440 lbs torque 400 ci V8 1968 GS 400, using the 2 door Skylark body and chassis. In a reshuffling of models in the lineup, the Special Deluxe replaced the previous Special. The Skylark nameplate was shuffled down a notch to replace the previous Special Deluxe. The previous Skylark was replaced by a new Skylark Custom.

The basic Skylark was available as a two-door hardtop coupe or a four-door sedan. The Skylark Custom came as a two-door convertible coupe, two-door hardtop coupe, four-door hardtop sedan, or four-door sedan.



**1968 Buick Skylark Custom 4-Door Sedan** 

1969 Buick Skylark hardtop sedan



### 1970 Buick Skylark coupe

The previous V6 was discontinued and the associated tooling was sold to Kaiser Industries, which used the V6 in its Jeep trucks and sport utility vehicles. The base engine in Buick Skylarks (and Buick Special sedans) became a 250-cubic-inch 250 cu in (4.1 L) Chevrolet I6, that produced 155 hp (116 kW) at 4200 rpm using a single-barrel Rochester carburetor.

Optional on the Skylark and standard on the Skylark Custom was a new 350-cubic-inch V8 derived from the 340, using a two-barrel Rochester carburetor that produced 230 hp (170 kW) at 4400 rpm. The Buick Special name was dropped after the 1969 model year. A locking steering column with a new, rectangular ignition key became standard on all 1969 GM cars (except Corvair), one year ahead of the Federal requirement.

For 1970, the mid-sized Buicks once again received new sheet metal and the Buick Skylark name was moved down another notch, replacing the previous entry-level Buick Special. It was available in two- and four-door sedans with the 250-cubic-inch inline-six as standard and the optional 350-cubic-inch V8 (260 horsepower at 4600 rpm). Two-door models shared their roofline with the 1970 Chevelle, distinct from that of the shared Pontiac

LeMans and Oldsmobile Cutlass. The two-door sedan was unique to Buick, sharing its roofline as the hardtop but having a thick "B" pillar, with Buick's traditional "Sweepspear" feature appearing as a crease running the length of the vehicle. Chevrolet did not offer a pillared coupe for the Chevelle from 1970 to 1972; all two-doors were hardtops.

Replacing the previous Buick Skylark was the Buick Skylark 350, available as a two-door hardtop coupe or four-door sedan with the 350-cubic-inch V8 as standard equipment. This 350-cubic-inch engine was a different design than the Chevy's 350 CID engine (4.000 in  $\times$  3.48 in) the Buick design had a longer stroke and smaller bore (3.80 X 3.85 in) allowing for lower-end torque, deep-skirt block construction, higher nickel-content cast iron, 3.0 in (76 mm) crank main journals, and 6.5 in (165 mm) connecting rods, the distributor was located in front of the engine (typical of Buick), the oil pump

was external and mounted in the front of the engine, the rocker arm assembly had all rocker arms mounted on a single rod and were not adjustable. The Skylark Custom continued to be available, also using the 350-cubic-inch V8 as standard equipment and still available as a two-door convertible coupe, two-door hardtop coupe, four-door hardtop sedan, and four-door sedan. Buick Gran Sport models continued to be available as a separate series. The Buick Sport Wagon name was now used on a conventional four-door station wagon that no longer featured a raised roof with glass panels over the cargo area, or a longer wheelbase, as in the past. It now used the same 116 in (2,946 mm) wheelbase as the Buick Skylark four-door sedan and the now-discontinued Buick Special four-door Station Wagon. It became, in effect, a Buick Skylark four-door station wagon in all respects but the name



**1971 Buick Skylark Custom convertible** 

For the 1971 model year, the base Skylark was available only with the inline-6, now only putting out 145 hp (108 kW) due to emission control devices, but in a two-door hardtop coupe body-style (in addition to the previous two- and four-door sedans). The Skylark 350 had a V8 engine that put out only 230 hp (170 kW). It was now available as a two-door sedan in addition to the previous two-door hardtop coupe and four-door sedan.



**1972 Buick Skylark Custom 4-door** Hardtop Sedan

1972 was the last model year for the mid-sized Buick Skylark. During this model year many pollution controls were added to the engines, Compression

was lowered, engines had to accept leaded and unleaded gas, and spark timing was retarded (no vacuum advance in lower gears) while driving in lower gears to reduce emissions. For 1972, the base Buick Skylark used the 350-cubic-inch V8 with the 2-barrel Rochester carburetor (now putting out 145 horsepower) as standard equipment. A new federally mandated system to calculate power was put into effect that year, and the actual engine performance was probably comparable but slightly lower because of pollution controls in the 1972 model year to the 230 hp (172 kW) that was listed for the previous year. The Skylark 350 now used a version of the same V8 engine as the base Skylark, but with a 4-barrel Rochester carburetor that generated 180 hp (134 kW).

Skylark Customs were available with the same 350-cubic-inch V8 engines available in the basic Skylark and the Skylark 350. The Custom had an upgraded interior and dash with some extra chrome. Convertibles only came in the Skylark Customs and the Skylark 350s.

# **1973 Buick Riviera (3rd Generation)**

The Buick Riviera is a personal luxury car that was marketed by Buick from 1963 to 1999, with the exception of the 1994 model year.

The Riviera was radically redesigned for the 1971 model year with flowing and dramatic "boat-tail" styling. Designed under Bill Mitchell's direction, it was penned by Jerry Hirshberg, future head of design for Nissan. The car has a unique two-piece



fastback rear window, inspired by the 1963 Corvette Sting Ray coupe.

Sluggish sales of the third generation Riviera led GM to believe that the boattail deck lid was too radical for most customers' tastes, so in 1973 it was blunted and made slightly shorter.

Only 34,080 Buick Rivieras were produced in 1973 and the original price of this car was approximately \$6,800 as equipped. This beautiful and rare car has fewer than 45,000 original miles!

Specs...

- 455 cubic-inch V-8 engine
- 315 horsepower
- 3-speed automatic transmission
- 122-inch wheelbase

## Buick Riviera Third Generation (1971 - 1973)

The Riviera was radically redesigned for the 1971 model year with flowing and dramatic "boat-tail" styling. Designed under Bill Mitchell's direction, it was penned by Jerry Hirshberg, future head of design for Nissan, mating the two-piece vee-butted fastback rear window, inspired by the 1963 Corvette Sting Ray coupe, to the Riviera's platform.

The design was originally intended for the smaller A-body or its related Gbody, as shown by a full scale clay model of an A-body based boat-tail Riviera recently revealed. Given the late stage of the 1968-72 A/G platform

evolution and accretive cost to add another version to it, GM Management decreed that the next Riviera use the full sized GM B platform body expanded for 1971 by 3 in (76 mm) in wheelbase and more than 120 lb (54 kg) heavier— which produced controversial looks, making for a sharp departure from those of the Toronado and Eldorado. (Collectible Automobile ran an article about 1971–76 full-sized Buicks in which one sketch design for their 2-door coupes which was rejected resembled the 1971–73 Riviera).

This generation introduced a much more visual representation of the "sweepspear", with a more faithful representation to the version that appeared on 1950s Buicks in both the side molding and beltline. Large, round wheel openings were intended to convey more of a sporty air. The only engine available was Buick's own 455 ci V8 engine producing 315 hp (235 kW), with 330 hp (246 kW) with the Gran Sport (GS) package.

The 455 engine had a lower compression ratio to meet EPA emissions

requirements, together with the shift from SAE gross to SAE net ratings this reduced claimed power to 255 hp (190 kW), with 265 hp (198 kW) in the Gran Sport. Performance remained reasonably brisk, with a 0–60 mph time of 8.1 seconds for the GS, but the Riviera's sporty image was rapidly fading. One noteworthy advance was Buick's Max Trac traction



control. The 1971 Riviera also features GM's "Full-Flo" ventilation system and two large deck lid louvers are prominent on the trunk lid.

Despite these features, Riviera sales for 1971 dropped to 33,810, the lowest to date. The 1972 Riviera received a new, eggcrate grille, more substantial front bumpers to prepare for the new 5mph impact legislation, restyled taillight trim, and the louvers were removed from the trunk lid. The 1972 Riviera also featured a redesigned ventilation system, and



the 455-engine switched to net power ratings, 225 hp (168 kW) or 250 hp (186 kW) in the Gran Sport, although the actual drop in net power was only 5 hp (4 kW). Sales remained stagnant at 33,728, a drop of 82 from the prior year.

For 1973, the Riviera underwent a number of changes. The front bumper was redesigned to be thicker and featured bumper guards as standard in

order to meet 1974 impact-bumper standards, the grille was switched back to horizontal slats, and the front lamps were moved from the bumper and were now integrated into the headlights, wrapping around the corners of the car. Sluggish sales of the third generation Riviera led GM to believe that the boattail deck lid was too radical for most customers' tastes, so in 1973 it was blunted and made slightly shorter. The taillights,



meanwhile, were moved down from the sheet metal and into the bumper, and the rear license plate location was moved from the left side of the bumper to the center. The 250 hp (186 kW) engine became standard, with 260 hp (194 kW) with the Stage One package. This also included a limitedslip differential and a chrome-plated air cleaner. The "Gran Sport" package was still available as a separate option package consisting of a ride-andhandling package that included a rear stabilizer bar, JR78-15 whitewall steel-belted radial tires, a specially tuned "radial roadability" suspension, additional sound insulation and special "Gran Sport" badging. The design changes however only led to a marginal increase in sales, with 34,080 being produced for the model year.

# **1991 Buick Reatta Convertible**

As Buick's first two-seater and its first convertible since the 1985 Riviera, the Reatta was manufactured in a highly-specialized assembly program at the Reatta Craft Center (later known as the Lansing Craft Center) in Lansing, Michigan — achieving production of more than 21,000 cars in four years.

After a delayed introduction due to design difficulties, Buick introduced the convertible Reatta in 1990 with a manually-operated top available in vinyl or cloth with a glass rear window and electric defroster. When retracted, the top was protected by a rigid tonneau cover. The 1991 models featured power pull-down motors to assist in tightening the rear bow of the top to the tonneau cover.

A Buick convertible would not be offered again until the four-seat Buick Cascada debuted in 2016.

Specs...

- 3.8-liter LN3 Buick V-6 engine
- 170 horsepower
- 4-speed 4T60-E automatic transmission
- 98.5-inch wheelbase
- Only 305 Reatta convertibles were produced in 1991
- Sold for \$35,965 new

The Buick Reatta is a low-volume transverse front-engine, front-wheel drive, two-door, twoseater grand tourer manufactured and marketed by Buick as a coupe (1988–1991) and convertible (1990–1991) — both featuring a







**3.8-liter V6 engine and shortened version of the GM E platform, shared with the seventh generation Buick Riviera.** 

As Buick's first two-seater and its first convertible since the 1985 Riviera, the Reatta was manufactured in a highly specialized assembly program at the Reatta Craft Center (later known as the Lansing Craft Center) in Lansing, Michigan—achieving production of over 21,000 units in four years.

For the Reatta's manufacture at the Reatta Craft Center, specialized teams of workers assembled the car at a series of stations rather than on a conventional assembly line. After a team had completed their portion of the assembly, the car would be moved by robots to the next station. Paintwork was performed on site under subcontract to PPG Industries.

The Reatta used GM's transverse "Buick 3800" V6 with 165–170 hp (123– 127 kW) and 210–220 lb<sup>-</sup>ft (285–298 N<sup>-</sup>m) of torque with the highest output in the last year of production. The car used a fully independent suspension, 4-wheel disc brakes with ABS, and front wheel drive. Top speed was electronically limited to 125 mph (201 km/h). The Reatta was rated at 18 mpg (13.1 L/100 km) in the city and 27 mpg (8.7 L/100 km) on the highway.

Intended as a halo car for Buick, production was projected at 20,000 Reatta's annually, and was available while the Cadillac Allanté and Pontiac Fiero were also available. GM announced the end of production in early 1991.

The Reatta featured twin bucket seats with a storage area behind the seats featuring two lockable bins and a lockable access hatch to the rear trunk. At introduction, options included 16-way power seats in lieu of 6-way power seats, side moldings in either black or body color and pinstripe delete. A sunroof became optional in late 1988, and in 1989 keyless entry was added as a standard feature. The 1988 listed retail price was \$25,000 (\$64,406 in 2023 dollars).

The Reatta had the distinction of being Buick's only car with pop-up headlamps with the entire headlamp assembly moving up and down. The other Buick cars with hidden headlamps, the Riviera (1965–1969) and the Skyhawk (1987–1989 for certain trim levels), had fixed headlamps hidden behind moveable covers.

Initially (1988–89), the Reatta featured a touchscreen computer interface, marketed as the Electronic Control Center (ECC), that included radio and climate control functions, date reminder, trip computer and user-

configurable overspeed alarm, as well as diagnostic access to the vehicle's electronic systems and sensors. Later models were equipped with conventional push-button stereo and climate controls. The new system eliminated the trip computer functionality and the climate control buttons could access diagnostic information, replacing the diagnostic scanner capability formerly provided by the touchscreen.

**Rick DeBruhl Commentary - "Why did the Buick Reatta Fail?"** 



# **1905 Cadillac Model F Touring**

The Model F was the primary new Cadillac model of 1905. It had a sharper hood and radiator, prompting the update of the Model B (which became the Model C) and even spawning an aftermarket of updates to existing Model A and Model B cars. Models E and F shared the same chassis, although the latter was lengthened by two inches.

The Model F was available as either a 4-



seater 2-door touring car with a side-entrance to the fixed tonneau, or a 2seat delivery vehicle. Both were priced at \$950 in 1905.

The 1905 Cadillac Model F Touring is a four-passenger car with a 98.2 cubic inch, 9 horsepower, single-cylinder, horizontal engine. The engine is located under the car, and a chain drive powers the rear wheels. The Model F has a top speed of 32 miles per hour, which is notable for the time due to its streamlined body and powerful engine. It has two forward gears and one reverse, and the brakes are controlled externally.

The Model F was Cadillac's main new model in 1905, and its sharper hood and radiator led to updates to the Model B, which became the Model C. It also inspired aftermarket updates for existing Model A and Model B cars.

Specs...

- 98.2 cubic-inch engine
- 9 horsepower
- Planetary transmission
- 4-passenger seating
- 2-wheel mechanical brakes
- Weight is 1,450 pounds

# **1929 Cadillac Dual-Cowl Phaeton**

The 1929 Cadillac was among the first designs penned by the legendary Harley J. Earl. Compared to its predecessor, the exterior of the 1929 Cadillac was little changed. Parking lamps were moved from the cowl to the tops of the fenders — a subtle modification providing a bit sportier look. Significant changes took place under the sheet metal. Most important was a new "clashless" Synchro-Mesh Silent-Shift transmission, negating the need for double-clutching while also enabling much smoother gear selection. New mechanical four-wheel brakes required considerably less pedal pressure than earlier models, and shatterproof Security Plate glass became standard in all windows. The suspension system featured new doubleacting Delco shock absorbers, and fully adjustable seats became standard.



Among the most elegant of the Cadillac's many available body styles were the Fisher Body-built dual-cowl phaeton that gave rear passengers their own cowl and windshield. Optional equipment includes six Buffalo wire wheels with Whitewall tires, including two side-mount spares, a stanchionmounted spotlight, articulated headlights, and a travel trunk.

## The Specs...

- 140" wheelbase
- 341 cubic-inch V-8
- 90 horsepower
- 3-speed manual transmission
- 4-wheel mechanical brakes
- Electric windshield wipers
- Total production of 36,598 cars, at \$5750ea

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Lou Costabile My Car Story - 1929 Cadillac

## **1930 Cadillac LaSalle Series 340 Touring Car**

The LaSalle was the "companion" car to the Cadillac, launched in 1927 and remained in production until 1940.

Individual body styles at La Salle, the great stylistic adventure of General Motors, had their own in-house nomenclature in 1930. The overall LaSalle line was designated as the Series 340 that year, and the physically largest one was the seven-passenger touring car, or the Fleetland. Buyers had their choice of 13 Fisher or Fleetwood bodies for the 1930 LaSalle and with overall production of 14,986, they were atypical even when new.

All of the models rode on 134-inch wheelbases, six inches less than their corresponding Cadillac brethren, with power from the 90-degree, 340 cubic inch L-head V-8 that had powered the 1928 and 1929 Cadillacs, rated at 90hp. La Salle produced 239 1930 Fleetland and the cost new was \$2,525.

The first engine upgrade to the LaSalle was introduced in 1929 with the Series 328, which had slight differences to the Cadillac V8 which was also upgraded. The Victoria and business coupe were replaced with the Landau Cabriolet from Fisher while Fleetwood choices were all cabriolet coupes or sedans. Both wheelbase choices were both available for Fisher and Fleetwood coachwork selections. September 1929 is when Cadillac introduced its all-new 1930







Series 353, one month before the Cadillac V-12 and the Wall Street Crash of 1929.

The ultra-luxury Cadillac V-16 made its grand introduction January 1930, and the LaSalle received another engine upgrade introduced in the LaSalle Series 340. Fisher body selections were reduced to seven closed while Fleetwood choices expanded to six. The only wheelbase used was 134" and a radio was first introduced as an optional item for US\$175 (\$3,192 in 2023)

dollars) and all LaSalle's were prewired with an antenna imbedded in the roof. Wheels were available in hickory artillery style, wire wheels or solid pressed steel discs. The engine displacement of the 1930 LaSalle and the 1928-1929 Cadillac Series 341 were essentially identical so the LaSalle was labeled as Series 340 while the 1930 Cadillac V8 was upgraded to Series 353. In an attempt to further add exclusivity, Fleetwood convertible coachwork selections were further distinguished by the descriptions "Fleetcliffe", "Fleetlands", "Fleetway" and "Fleetwind" which didn't continue for 1931. The next vehicle choice offered by GM was the all-new Buick Series 50 coupe or sedan with a straight-eight engine with a similar appearance and a Fisher Body for US\$1,540 (\$28,088 in 2023 dollars) while a LaSalle Series 340 sedan was listed at US\$2,565 (\$46,783 in 2023 dollars)

General Motors chairman Alfred P. Sloan had been considering a new vehicle range to fill the ever-growing gap between Buick and Cadillac since about 1920, but it wasn't until 1924 when Cadillac's president Lawrence Fisher finally put that plan into motion. A key move from Fisher was to hire a talented young designer named Harley Earl to style this new car, called LaSalle. The son of a California coachbuilder, Earl was assigned the task of designing a stylish new motorcar that would convey the elegance and status of Cadillac, but with a more sporting, agile appeal, and at a more affordable price point. Earl would later reveal his original design for LaSalle was influenced by Hispano Suiza, particularly in the graceful fenders and distinct, high peaked radiator grille. LaSalle's bold two-tone color schemes however, were all Harley Earl.

Mechanically, LaSalle utilized its own V8 engine that was similar to Cadillac's unit albeit smaller and with a few fundamental differences. By 1930, however, LaSalle's V8 was in essence the same size and output as the Cadillac's, imparting the lighter LaSalle with a sporty, agile feel. It seemed that GM came along with the idea for a junior Cadillac brand at just the right time. Given the economic crash of the late 1920s, the more affordable car sold exceptionally well in its first three years, often outselling its senior sibling handily. By the end of the 1930s, LaSalle had become a serious threat to Cadillac and was stealing sales from the flagship marque, and so it was given the axe in 1940, with the Cadillac Series 60 taking over the helm as the value leader. Perhaps more importantly, it was the first major success for Harley Earl; a man who would go on to become a legend within GM and earn his place as one of the most influential automobile designers in history.

This 1930 LaSalle Series 40 wears a rare and attractive 7-passenger

Fleetlands touring car body by Fleetwood. Just 239 examples of this Fleetwood style (catalog number 4057) were built, compared to more than 3,100 Town Sedans, making it quite rare today. With a well-preserved older restoration, this LaSalle is a great looking example that is well-suited for touring and regular enjoyment. In keeping with Harley Earl's original design brief, this car is finished in a bold two-tone color scheme of silver over burgundy fenders and feature lines with subtle red striping. Paint quality is very good, showing a few minor touchups upon close inspection, but remaining very attractive overall. The body presents well with straight, properly aligned panels and clean reflections. It rides on a set of color-keyed disc wheels, with dual side mount spares giving the car a sporting and purposeful look. The brightwork shows in fine condition, and the body is well accessorized with a pair of steerable Pilot Ray driving lamps, a heron mascot (available on both Cadillac and LaSalle ranges), dual side mount spares with mirrors and a large painted metal trunk. Harley Earl's styling of the fenders and grille combine with Fleetwood's expertly judged body to produce a very handsome and sporty touring car.

Interior trim is very nicely presented in red antiqued leather to complement the exterior livery. Generously sized wind wings are mounted to the front screen, while rear passengers have their own windscreen with fold out wind wings and a clever sliding central panel that opens to allow them to converse with the driver. A pair of folding jump seats allows for two additional passengers, and of course the black canvas top can be folded for the full open-air motoring effect. The instrument panel is in good condition, with original dials supplemented with later-addition temperature and amp gauges to keep a watchful eye on underhood vitals.

The LaSalle V8 is nicely detailed and presented in mainly correct finishes, very suitable for a high-quality driver. The chassis and undercarriage are exceptionally clean and tidy, showing the car has enjoyed light and careful and use since its restoration. It runs and drives well, with the typical smooth power delivery and respectable performance for which LaSalle was so well known. This handsome and rare automobile is a fine example from this short-lived, but no less historically important marque; one that launched the career of Harley Earl, helped save Cadillac during the Great Depression, and inspired the likes of Packard and Lincoln to create their own entry level lines. With its handsome and rare Fleetwood coachwork and eye-catching presentation, this LaSalle Series 40 would make a fine choice for local shows and casual touring with family and friends.

## Specs...

- Cadillac 90-degree V-8 engine
- 3-speed Syncro-Mesh transmission
- Build date was 5/1/1930
- Shipped to Glacier Park, Montana c/o Hall Cadillac, Denver

**Rick DeBruhl Commentary - What the Heck is a LaSalle** 



# 1930 Cadillac LaSalle 340 Fleetlands

General Motors chairman Alfred P. Sloan had been considering a new vehicle range to fill the ever-growing gap between Buick and Cadillac since about 1920, but it wasn't until 1924 when Cadillac's president Lawrence Fisher finally put that plan into motion. A key move from Fisher was to hire a talented young designer named Harley Earl to style this new car, called LaSalle. The son of a California coachbuilder, Earl was assigned the task of designing a stylish new motorcar that would convey the elegance and status of Cadillac, but with a more sporting and agile design, and at a more affordable price point.

In 1930, LaSalle's V-8 was in essence the same size and output as the Cadillac's, imparting the lighter LaSalle with a sporty, agile feel. It seemed that GM came along with the idea for a junior Cadillac brand at just the right time.

Given the economic crash of the late 1920s, the more affordable car sold exceptionally well in its first three years, often outselling its senior sibling handily. By the end of the 1930s, LaSalle had become a serious threat to Cadillac and was stealing sales from the flagship marque, and so it was given the axe in 1940.

This 7-passenger car is a favorite of our founder and Chairman Mel Martin. He drove this car in the Great American Race (now the Great Race) twice - from Marietta, Georgia to Anaheim, California and from Jacksonville, Florida to Sonoma,





California, The LaSalle was the inspiration for the museum's logo and this car is occasionally used for special events like weddings, parades, car shows, and more.

Specs...

- Coachwork by Fleetwood
- 134" Wheelbase
- 240 cubic inch, 20 degree, L-head V-8 engine
- 80 horsepower
- 3-apeed synchro-mesh transmission
- Safety mechanical brakes on all four wheels

### Revision May 20, 2025 rev U 1931 Cadillac Fleetwood Convertible Model 355A

Many consider 1931 to be the pinnacle of the "Classic Era" for Cadillac. As a convertible coupe with a rumble seat, this Fleetwood-bodied car is one of the most desired among collectors.

With the introduction of its new V-12, Cadillac became the only car company to offer V-8, V-12, and V-16 models. Cadillac offered 134-, 140-, and 143inch wheelbases, bodies by Fisher and Fleetwood, three different engine configurations, and the more moderately priced LaSalle as part of its lineup. It arguably began a trend that eventually led to Cadillac's domination of the luxury car field over rival Packard.

While the flagship V-12 and V-16 gathered all the fanfare, the V-8 powered models like this convertible coupe sold in steady numbers, helping Cadillac's bottom line during difficult economic times. Cadillac produced a total of 10,717 V-8 models in 1931. All Series 355 Cadillacs rode a new 134inch wheelbase, six inches shorter than 1930 models giving the cars a sporty appearance.

The 1931 Series 355A was very similar to the Series 353 except it was longer and lower, had a longer hood with five hood ports, with matching doors in the cowl. There was a modified coach sill with no compartments in the splash pan. The battery and tool compartment were now under the front seat. Floor





boards were made of metal for the first time. The instrument panel was oval

with the same gauge groupings as in the Series 353. The Series 355 featured a radiator screen, a single bar bumper and dual horns. The headlight diameter was reduced by one inch. There was a new frame with divergent side rails. The suspension springs now had metal covers. The radiator was mounted lower in the frame and there was now a condenser tank for cooling operation. The engine was the same 353 cu in (5.8 L) L-Head V8 as on the Series 353, thus the series designation no longer matched the displacement and was the basis for the "series" naming convention. Engine horsepower was 95. A five-point engine suspension, similar to the V-16 was used. An intake muffler was added and the distributor was mounted 1.5 in (38 mm) higher. The fan was mounted lower to match the lower radiator. Model year sales totaled 10,717.

Specs...

- 353 cubic-inch L-Head V-8 engine
- Single updraft carburetor
- 3-speed transmission
- 4-wheel semi elliptic leaf spring suspension
- 4-wheel drum brakes

# **1937 Cadillac LaSalle Coupe Series 50**

While it was completely built by Cadillac, the LaSalle was its own brand. It was conceived by General Motors as a "companion marque" to Cadillac to compete with Packard and other brands. The LaSalle cars were built by Cadillac with the same care, attention, and quality that it dedicated to its own brand and used a significant number of Cadillac components to minimize parts and development costs. The LaSalle brand was introduced to the market in 1927, but by 1940, the decision to draw the curtain had been made, and production ended for the LaSalle.

The 1937 LaSalle coupe combined utility, comfort, and style. The LaSalle cruised at 50 miles per hour. Plush upholstery, heater, radio, watertight windows, and room for luggage added comfort. And General Motors' Styling Section, headed by Harley Earl, added streamlined and Art Deco touches to complete the package.

LaSalle was advertised as "Easy to Buy -Economical to Own" in 1937. While sales of 32,000 LaSalle autos in 1937 was a great improvement, it remained far behind the Packard.

The Series 50 was also no longer available with a V8, which was a distinction shared





with all Cadillacs, and now only available with an Oldsmobile sourced flathead inline-eight, while Buick continued to offer the more technologically advanced overhead valve straight-eight engine exclusive to Buick. The LaSalle was the first Cadillac to use hydraulic brakes sourced from Bendix and various components were sourced from within different GM Divisions in order to cut production costs. The Oldsmobile engine was not assembled by Oldsmobile then supplied to the LaSalle factory, instead the parts were sent to the LaSalle factory and assembled by Cadillac-trained

LaSalle assembly teams to authentically declare it was manufactured by Cadillac engineers. The LaSalle sales department further invited clients to witness the cars being manufactured and listed the different companies that sourced various items that were used to manufacture the 1934 LaSalle.

This LaSalle Series 50 Model 350 listed at US\$1,550 (\$35,303 in 2023 dollars) for a choice of coupes, sedans or convertibles and was now priced US\$1,000 (\$22,776 in 2023 dollars) below the least expensive Cadillac. Its mission was not to fill a price gap, but to keep the luxury-car division out of the red. But as the economy began to recover, the LaSalle did not, at least not commensurate with the economy. Sales were 7,195 in 1934, 8,651 in 1935 and 13,004 in 1936 while Buick appeared to be more attractive yet frugal.

Specs...

- Coachwork by Fleetwood
- 134" wheelbase
- 340 cubic-inch, 90-degree, L-head V-8 engine
- 90 horsepower
- 3-speed synchromesh transmission
- Safety-mechanical brakes on all four wheels

## **Rick DeBruhl Commentary - "What Happened to LaSalle?"**



## 1948 Cadillac Series 62 2-Door Fastback

For the 1948 model year, General Motors designers Harley Earl and Frank Hershey struck gold with their new Cadillac line. Fresh, beautiful styling combined with a well-built chassis and robust, though dated Lhead V-8 engine.

What set the car apart was a subtle design cue that led to one of the most iconic, heavily copied trends in motoring history - the tailin. The inspiration for the small kicked-up

fin at the end of each rear fender came from Lockheed's P-38

Lightning, America's finest heavy fighter plane during World War II.

The Series 62 had the broadest range of bodies, including a convertible coupe, four-door sedan,



pillarless Coupe De Ville, and the gorgeous fastback two-door coupe, also known as the Sedanette. Series 62 production totaled 34,213 vehicles for the 1948 model year, accounting for 68% of Cadillac's volume. Just 4,764 of the fastbacks were produced, and they stand among the most sought-after and collectible of all post-war Cadillacs.

The Series 62 included a lower sleeker body, a new cellular grille insert, and inverted gull wing front bumpers and tapered dagmar style bumper guards. Round jet-style dual exhaust outlets were incorporated into the vertical bumper extensions and the rear bumper was entirely redesigned. An Eldorado-style wraparound windshield was seen on all models. Sedans

used a distinctive style of window reveal molding, which created a built-in sun visor effect. For coupes a smoothly curved wraparound backlight was referred to as the "Florentine"-style rear window. A wide ventilator intake was now stretched across the base of the windshield on all body styles and the chrome visored headlamp look was emphasized. The Series 62 could be distinguished by the lack of rear fender louvers. V-shaped ornaments and crests were used in the hood and deck and there were full length body underscores in bright metal. Coupe de Ville script was seen on rear corner pillars of the luxury hardtop, which also had wider sill moldings. The Eldorados had golden identifying crests centered directly behind the air-slot fender breaks and wide fluted beauty panels to decorate the lower rear body sides. These panels were made of extruded aluminum and also appeared on a unique one-of-a-kind Eldorado coupe built for the Reynolds Aluminum Corporation. Also included in the production Eldorado convertible were monogram plates on the doors, wire wheels, and custom interior trimmings with the Cadillac crest embossed on the seat bolsters. Automatic windshield washers, power steering, 12-volt electrical system, and aluminum alloy pistons made the long list of standard equipment for the first time this year. Power steering, windows, seats, and auto headlight dimming were optional. A parking brake release reminder light was new. Popular Mechanics rated the 0-60 mph time as 17.3 seconds. Air conditioning was provided by Frigidaire optionally on sedans and hardtops, which consisted of a self-contained unit that was retrofitted at the customer's request.

Rick DeBruhl Commentary - The fins that started an automotive revolution!









### Specs...

- 327 cubic-inch L-head inline 8-cylinder engine
- Highly-modified Cadillac
- Special paint and custom Interior
- 500 cubic-inch engine
- 375 horsepower
- Turbo 400 automatic transmission
- Torsion bar front suspension
- Front disc brakes
- Original cost of \$2,728

## 1949 Cadillac Series 62 Convertible Coupe

Originally designed to complement the entry level Series 61, the Cadillac Series 62 was produced by Cadillac from 1940 through 1964. This car is part of the third generation of the model produced between 1948 and 1953. The Series 62 was also marketed as the Sixty-Two and the Series Sixty-Two.

The Series 62 was used to introduce the Cadillac Coupe de Ville and the Cadillac Eldorado, which started out as special appearance packages that were later placed into production. Series 62 Cadillacs had a slightly shortened wheelbase, but the track width was increased by two inches, increasing interior room.

The new Cadillac V-8 engine was the big news for 1949, with minor trim differences otherwise. The new engine could handle higher compression levels to take advantage of improved, higher octane post-war gasoline. The major difference between Series 61 and Series 62 models of similar body style was minor trim variations. The higher-priced series again had grooved, front fender stone shields and bright rocker panel moldings. Chevrons below the





taillights were no longer seen. The convertible was an exclusive offering. A heater was optional - as shown on the car.

Specs...

- 331 cubic-inch V-8 engine
- 160 horsepower
- 4-speed Hydra-Matic automatic transmission
- 126-inch wheelbase
- New price was \$3,496
- 8,000 Convertible Coupes were produced in 1949

### Revision May 20, 2025 rev U **History**

The first all-new postwar Cadillacs arrived in 1948, sporting tail fins inspired by the Lockheed P-38 fighter plane on a Cadillac. Series 62 Cadillacs had a slightly shortened wheelbase, but the track width was increased by two inches, increasing interior room. However, updated drivetrains would have to wait another year and for the time being, the new Cadillacs were still powered



by the same 346 CID flathead V8 used across the board since 1941, which delivered only fair performance (0-60 in 16 seconds with a top speed of 93 mph). Fuel mileage was an estimated 14 mpg highway, 10 mpg city with the Hydramatic transmission, which was rapidly becoming the norm — by 1949, only 10% of Cadillacs were ordered with the 3-speed manual gearbox. Series 62 production totaled 34,213 vehicles for the 1948 model year, accounting for 68% of Cadillac's volume. The 1948 models had been slow to get into production and did not arrive in showrooms until February 1948, consequently Cadillac produced only 50,599 total vehicles for the abbreviated model year.

The new Cadillac OHV V8 was the big news for 1949, with minor trim differences otherwise. This 331 cu in (5.4 L) engine produced 160 hp (119 kW) and weighed 200 pounds less than the old flathead V8 in addition to being shorter and lower. The 331 V8 could also handle higher compression levels to take advantage of improved, higher octane postwar gasoline formulations. The major difference between Series 61 and Series 62 models of similar body style was minor trim variations. The higher-priced series again had grooved, front fender stone shields and bright rocker panel moldings. Chevrons below the taillights were no longer seen. The convertible was an exclusive offering. A heater was optional. Sales reached a record 55,643.

The Cadillac Series 62 Coupe de Ville was introduced late in the 1949 model year. Along with the Buick Roadmaster Riviera, and the Oldsmobile

98 Holiday, it was among the first pillarless hardtop coupes ever produced. At \$3,496 (\$44,768 in 2023 dollars) it was only a dollar less than the Series 62 convertible, and like the convertible, it came with power windows standard. It was luxuriously trimmed, with leather upholstery and chrome 'bows' in the headliner to simulate the ribs of a convertible top.

55,643 Series 62 Cadillacs were produced in 1949 out of a total volume of 92,554 vehicles.

# **1957 Cadillac Eldorado Brougham**

The hand-built Eldorado Brougham really stands out with its brushed stainless-steel roof and unique centeropening suicide doors that lock automatically when the car is put in gear.

In 1957, Cadillac's Eldorado Brougham was as good as luxury motoring got. The Brougham was designed and built to compete with Cadillac and Lincoln's premium-priced Continental Mk II. In



an era when even a Rolls-Royce cost \$10,000, the Eldorado Brougham started at \$13,074 (equivalent to about \$120,000 today). There were choices — paint color and interior fabric, for

Specs...

- Only 400 were made in 1957.
- 365 cubic inch engine
- 325 horsepower
- GM Hydra-Matic 4-speed transmission
- Suicide doors
- Self-leveling air suspension

Cadillac Eldorado Brougham – A Time When Cars Were Art

Article and pictures by: ThrottleXtreme.com "Push the Pedal to The Metal"

Cadillac Eldorado Brougham was handbuilt, limited edition car with every conceivable luxury feature as standard equipment to show that Caddy was the luxury car king.

By the time 1957 rolled around, United States was doing fairly well economically, although a slight recession would hit in 1958. Even at



that, auto manufacturers continued to market new luxury cars that catered to an even higher echelon of the public than usual. Ford had already come

out with the Mark 2 Continental, which was not technically a Lincoln since it had its own division. The \$10,000 dream car would only last two model years.

Chrysler had the new Imperial Ghia limousine, built in Italy. The Shah of Iran, Jacqueline Kennedy, General Macarthur, Nelson Rockefeller, The King of Saudi Arabia, Pearl Buck, and David Sarnoff were customers. At approximately \$19,000, each one sold (132 through 1965) was a money loser. It was more of a marketing tool than anything else, designed to sell regular



Imperials. Not to be outdone, Cadillac threw their dream car (and their checkbook) into the fight.

Based on a concept vehicle exhibited during the GM Motorama of 1955, the Eldorado Brougham models of 1957 through 1960 were designed to showcase Cadillac's abilities as a maker of luxury vehicles. The Brougham was the realization of dream car designer Harley Earl, who retired in 1958. The hyper-luxurious Brougham was described by Cadillac management as the most advanced automobile ever built and a mirror of things to come. It was the most complex automobile ever offered to the American public, with features supposedly not yet found on today's cars. Like what, the cigar

humidor and the dual quads? Smoking is bad for you. The Eldorado Brougham was the product of several years of engineering and styling development. It was preceded by a number of experimental Cadillac concept cars nobody in their right mind would have





bought including the 1953 Orleans, the 1954 Park Avenue, the 1955 Eldorado Brougham prototype, and the 1956 Eldorado Brougham Town Car. Funny, the final production cars never looked anything like the dream cars, no matter who's it was, Chrysler, GM, etc. Makes you wonder what kinds of dreams these designers were having. Pass the bong, dude.



Among the features awaiting the passengers were radio / telephone, air conditioning controls, women's vanity, cigar humidor, thermos bottle, and glassware. Sorry, no booze, you had to buy your own. An electronic locking system both secured the doors when the vehicle was in motion and opened the center opening doors when needed. Larger than the 1955 Brougham, it was 219.9 inches long and 55.8 inches high. Wheelbase was 129.5 inches. Although it didn't much resemble the eventual production model, the Town Car illustrated what was to come for 1957.

The price for the Brougham was a lofty \$13,074, making it the most

expensive American production car of its day. That's twice the price of the next dearest Cadillac and even more expensive than a new Ferrari or a Rolls-Royce Silver Cloud! Unfortunately, it cost Cadillac \$23,000 to build each one. I could never understand why a car company would be willing to lose tens of thousands of dollars on cars sold to people who could probably buy the company outright if they chose to.



The 1957 Brougham featured the 365 cubic inch Cadillac engine, equipped with two four-barrel carburetors to help out with gas mileage, no doubt. The mill produced 325 horsepower and about 8 mpg. Hey, who cares, you got the big bucks, you can swing the 20 cents per gallon for 1957 gas. For 1958 they switched to three two barrels and upped the rating to 335 horsepower. For 1959 and 1960, the new 390 cubic inch motor was used with tri power, producing 345 horsepower.
The Broughams were typically owned by movie stars, wealthy industrialists, and even a reputed gangster or two. For your money, you took delivery of the most opulently equipped car ever to come out of Detroit. It was equipped with such items as a ladies compact, magnetized drinking cups, cigarette case, lipstick holder, beveled mirror, note pad, lambskin carpet, and



a perfume atomizer filled with Arpege de Lavin, Paris. For slightly less, say \$10,000 less, you could get most of this crap in a Dodge La Femme leftover. The atomizer was filled with Old Spice aftershave, but what the heck, think of the money you'd save.

Obviously, the perfume and the drinking cups weren't worth 13 large, but it was a nice touch. The items that made the car worth the price included an electronic memory seat position system, an automatic starting mechanism which would start the car without having to touch the key, (car thieves have this system, it's called a dent puller) automatic trunk



release/lock with a control button in the glove box, and of course the usual power assists and air conditioning. Leather seats were optional at no extra cost.

This car was strictly for those privileged few who could afford the car of the future while living in the present. The underprivileged few lived in the past and got an old Ford with Dixie cups in the glove box and a halfempty bottle of moonshine. What, no perfume? If you were lucky, maybe somebody would spill Aqua Velva on the seats.



Today more than half the total number of Broughams built survive and are in the hands of enthusiasts and collectors the world over. The majority of

these vehicles remain in good to very good condition. They represent the finest of GM's efforts of the day. I don't know where my old man's Ford went.

# **1969 Cadillac DeVille Convertible**

DeVille is the nameplate used by Cadillac over eight generations - originally used to designate a trim level of the 1949 Cadillac Series 62 and later to designate a standalone model in the brand range. The last model marketed specifically as a DeVille was the 2005 full-size sedan, at the time, Cadillac's largest model.

In 1969, the DeVille was restyled in the Eldorado image. An Eldorado-like front



fender treatment evolved and helped to emphasize a stronger horizontal design line. Rear quarters were extended to give the car a longer look. There was an all-new grille with dual horizontal headlamps positioned in the outboard step-down areas of the grille. The hood was again extended, a total of 2.5 inches to add the impression of extra length. The roofline was squarer and the rear deck and bumper more sculptured. A new ventilation system eliminated the need for vent windows, which provided a longer sleeker look and improved visibility.

The ignition switch was moved from the instrument panel to the steering column, and included a steering wheel and transmission lock, one year ahead of a mandated Federal standard.

Specs...

- 472 cubic-inch V-8 engine
- 375 horsepower
- 3-speed Turbo Hydra-Matic transmission
- 129.5-inch wheelbase
- Original sales price \$5,900
- Of the 223,237 DeVille cars built in 1969, 16,445 were convertibles

As it had been since De Ville became a separate series, De Ville denoted Cadillac's mainstream model, falling between the Calais (which had replaced the Series 62) and the Sixty Special and Eldorado. The De Ville was redesigned for 1965 but rode on the same 129.5-inch (3,290 mm) wheelbase. Tailfins were canted slightly downward, and sharp, distinct body lines replaced the rounded look. Also new were a straight rear bumper and vertical lamp clusters. The headlight pairs switched from horizontal to

vertical, thus permitting a wider grille. Curved frameless side windows appeared, and convertibles acquired tempered glass backlights. New standard features included lamps for luggage, glove and rear passenger compartments and front and rear safety belts. Power was still supplied by the 340 horsepower 429 cu in (7,030 cc) V8, which would be replaced by the 472 cu in (7,730 cc) for 1968. Cadillac dropped the X-frame and used a new perimeter frame. Pillared sedans appeared on the De Ville series for the first time, while six-window hardtop sedans were dropped. A padded vinyl roof was a \$121 extra-cost option on the hardtop model. All four DeVille models had small "Tiffany-like" script nameplates on the ends of their rear fenders just above the chrome side molding.

In 1966, changes included a somewhat coarser mesh for the radiator grille insert, which was now divided by a thick, bright metal horizontal center bar housing rectangular parking lamps at the outer ends. Separate rectangular cornering lamps replaced the integral grille extension designs. There was generally less chrome on all Cadillac models this year. De Ville scripts were still above the rear tip of the horizontal body rub moldings. Cadillac crests and V-shaped moldings, front and rear, were identifiers. Cadillac "firsts" this season included variable ratio steering and optional front seats with carbon cloth heating pads built into the cushions and seatbacks. Comfort and convenience innovations were headrests, reclining seats and an AM/FM stereo system. Automatic level control was available. Engineering improvements made to the perimeter frame increased ride and handling ease. Newly designed piston and oil rings and a new engine mounting system and patented quiet exhaust were used.

The 1967 DeVilles were extensively restyled. Prominent styling features were given a powerful frontal appearance with forward-leaning front end, long, sculptured body lines, and redefined rear fenders that had more than just a hint of tail fins in them. The full-width, forward-thrusted "eggcrate" grille was flanked by dual stacked headlights for the third consecutive year. The squarer cornered grille insert had blades that seemed to emphasize its vertical members and it appeared both above the bumper and through a horizontal slot cut into it. Rectangular parking lamps were built into the outer edges of the grille. Rear end styling revisions were highlighted by metal divided tail lamps and a painted lower bumper section. Coupe de Villes got a new roofline, inspired by the Florentine show car created for the 1964 New York World's Fair, that gave rear seat passengers added privacy. As on that show car, the quarter window glass retracted rearward into a sail panel. Minor trim variations and slightly richer interiors separated De Ville

from Calais. Tiffany style chrome signature scripts were again found above the body side molding on the rear fenders. New standard DeVille features included non-glare rear-view mirror, electric clock, Automatic Climate Controls, padded dashboard, Hazard Warning system, outboard seatbelt retractors and rear cigarette lighters in all styles. A slide-out fuse box and safety front seat back lock for two-door models were additional Cadillac advances for the 1967 model year. Technical improvements included a revised engine valve train, different carburetor, Mylar printed circuit instrument panel, re-tuned body mounts, and a new engine fan with clutch for quieter operation. A GM-designed Energy Absorbing steering column and safety wheel became standard for all models.

In 1968, grilles had an insert with finer mesh and step-down outer section which held the rectangular parking lights just a little higher than before. Rear end styling was modestly altered with the deck lid having more of a rake. The most obvious change was an 8.5-inch (220 mm) longer hood designed to accommodate recessed windshield wiper-washers, which now came with three speeds standard. Of 20 exterior paint color combinations, 14 were totally new. On the inside enriched appointments included molded inner door panels with illuminated reflectors and a selection of 147 upholstery combinations, 76 in cloth, 67 in leather and four in vinyl. New standard features included a Light Group, a Mirror Group, a trip odometer and an ignition key warning buzzer. The DeVille also gained a new 472 cu in (7,730 cc) V8 engine rated at 375 hp (SAE gross). 1968 was also the last year for the "stacked" dual headlights, which were replaced with side-byside dual headlights in 1969. This was also the last year for vent windows. Side marker lights in the rear bumper as well as front fender were also added. Side mirror changed from a round to rectangular shape. Also, of note front disc brakes were available starting in 1968. Cars built after January 1, 1968, got front shoulder belts per Federal safety standards.

In 1969, DeVille was restyled in the Eldorado image. An Eldorado-like front fender treatment evolved and helped to emphasize a stronger horizontal design line. Rear quarters were extended to give the car a longer look. There was an all-new grille with dual horizontal headlamps positioned in the outboard step-down areas of the grille. The hood was again extended, a total of 2.5 inches (64 mm) to add the impression of extra length. The roofline was squarer and the rear deck and bumper more sculptured. A new ventilation system eliminated the need for vent windows, which provided a longer sleeker look and improved visibility. New standard features included front and rear (except on convertibles) center seat armrests. The ignition

switch was moved from the instrument panel to the steering column, and included a steering wheel and transmission lock, one year ahead of a mandated Federal standard.

In 1970, a facelift included a grille with 13 vertical blades set against a delicately cross-hatched rectangular opening. The bright metal headlamp surrounds were bordered with body color to give it a more refined look. Narrow vertical "vee" tail lights were seen again, but now had additional smaller V-shaped bottom lenses pointing downward below the bumper. Wheel discs and winged crest fender tip emblems were new. Exterior distinctions came from a De Ville script above the rear end of the belt molding and from the use of long rectangular back up light lenses set into the lower bumper as opposed to the smaller square lens used on the Calais. A new feature was a body color border around the edge of the vinyl top covering, when this option was ordered. The 1970 model year was both the last year that De Ville offered a convertible body style and for pillared sedans until hardtops were permanently dropped in 1977. A total of 181,719 DeVilles were sold for that model year, accounting for 76% of all Cadillacs.

## **1976 Cadillac Eldorado Convertible**

The Cadillac Eldorado is a luxury car manufactured and marketed by Cadillac from 1952 to 2002 over twelve generations - this being a ninth-generation car (1971-1978). Throughout its production, the Eldorado was at or near the top of the Cadillac line. The original 1953 Eldorado convertible and the Eldorado Brougham models of 1957-1960 had distinct bodyshells and were the most expensive models that



Cadillac offered those years. 1976 was to be the final year for the Eldorado convertible and the car was heavily promoted by General Motors as "the last American convertible". Some 14,000 would be sold, many purchased as investments. The final 200 were designated as "Bicentennial Edition" commemorating America's 200th birthday.

These cars were white with a dual-color red/blue pinstripe along the upper bodyside. When GM reintroduced Eldorado convertibles for the 1984 model year, owners of 1976 Eldorados felt they had been deceived and launched an unsuccessful class action lawsuit. Having received a major facelift the previous year, the 1976 Eldorado received only minor styling changes, including a new grille and revised taillamp lenses. In 2002, GM announced the end of the Eldorado line. 1596 red or white convertibles were produced in three batches of 532.

The Cadillac Eldorado is a luxury car manufactured and marketed by Cadillac from 1952 until 2002 over twelve generations.

The Eldorado was at or near the top of the Cadillac line. The original 1953 Eldorado convertible and the Eldorado Brougham models of 1957–1960 had distinct bodyshells and were the most expensive models that Cadillac offered those years. The Eldorado was never less than second in price after the Cadillac Series 75 limousine until 1966. Starting in 1967 the Eldorado retained its premium position in the Cadillac price structure, but was manufactured in high volumes on a unique, two-door personal luxury car platform.

The Eldorado carried the Fleetwood designation from 1965 through 1972, and was a modern revival of the pre-war Cadillac V-12 and Cadillac V-16 roadsters and convertibles.

The nameplate Eldorado is a contraction of two Spanish words that translate as "the gilded (i.e., golden) one" — and also refers to El Dorado, the mythical Colombian "Lost City of Gold" that fascinated Spanish explorers.

Chosen in an internal competition for a 1952 concept vehicle celebrating Cadillac's golden anniversary, the name Eldorado was subsequently adopted for a limited-edition convertible for model year 1953.

Cadillac began using the nameplates "Eldorado Seville", after the city in southern Spain, and "Eldorado Biarritz" after the luxury seaside resort in southern France, to distinguish between the hardtop and convertible models (respectively) while both were offered, from 1956 through 1960 inclusively. The "Seville" name was dropped when the hardtop was initially discontinued (1961), but the Biarritz name continued through 1964. Beginning in 1965, the Eldorado became the 'Fleetwood Eldorado'. 'Biarritz' returned as an up-level trim package for the Eldorado for 1976 until 1991.

1976 was to be the final year for the Eldorado convertible and the car was heavily promoted by General Motors as "the last American convertible". Some 14,000 would be sold, many purchased as investments. The final 200 convertibles were designated as "Bicentennial Edition" commemorating America's 200th birthday. All 200 of these cars were identical, painted white with a dual red/blue pinstripe along the upper bodyside and inside, a commemorative plaque was mounted on the dashboard. When Cadillac reintroduced the Eldorado convertible for the 1984 model year, several customers who had purchased 1976 Eldorado convertibles as investments, felt they had been deceived and launched an unsuccessful class action lawsuit against General Motors. Having received a major facelift the previous year, the Eldorado for 1976 received only minor styling changes, including a new grille, a small Cadillac script on the hood face, revised taillamp lenses and new black painted wheel covers.

For 1977, the Eldorado again received a new grille with a finer crosshatch pattern. New vertical taillamps were relocated to the chrome bumper-fender extensions. New 'Eldorado' block-lettering appeared on the hood face and new rectangular side marker lights with 'Eldorado' block-lettering replaced the 'Eldorado' script on the rear fenders. The convertible was dropped (although Custom Coach of Lima, Ohio converted a few 1977 and 1978 Eldorados into convertibles using salvaged parts from earlier models). The

mammoth 500 cu in. (8.2L) V8 of 1970–76 was replaced by a new 425 cu in. (7L) V8 with 180 bhp (134 kW) available in all 1977 Cadillacs, except the Seville.

Specs...

- 500 cubic-inch V-8 engine
- 215 horsepower
- 3-speed Turbo Hydra-Matic automatic transmission
- 126.3-inch wheelbase

## **1996 Cadillac Fleetwood Brougham**

The Cadillac Fleetwood was a fullsize luxury sedan that was marketed by Cadillac from the 1976 to 1996 model years. Taking its nameplate from a coachbuilder historically associated with the General Motors division, the Cadillac Fleetwood became a stand-alone model line in 1985.

The first generation of the Fleetwood was introduced as Cadillac converted its C-body platform to front-wheel drive. Serving between the Sedan DeVille and the Sixty Special in the front-wheel drive Cadillac line, the Fleetwood also filled the gap between the DeVille and the rearwheel drive Fleetwood Brougham (Cadillac Brougham from 1987-1992). The second generation moved to the D-body platform, serving as the replacement of the Brougham (the Fleetwood Brougham returned as a trim option).



Following the 1996 model year, Cadillac retired its Fleetwood line as GM ended production of its full-size sedan lines in North America. Within Cadillac, its large sedan lines were consolidated solely to the DeVille series (later the Cadillac DTS).

For 1998–1999, the Cadillac Fleetwood name saw a revived use on a license-built conversion of the Sedan DeVille. Developed between Cadillac and professional car manufacturer Superior Coach Company, the Cadillac Fleetwood Limited added six inches of wheelbase (to 119.8 inches) and 12 inches of body length (to 221.8 inches, 3 inches shorter than a 1996 Fleetwood Brougham), increasing rear seat legroom and luggage space.

Alongside the standard Cadillac options for the DeVille (using the standard 275hp 4.6L V8), Superior offered a variety of stand-alone options with the conversion, including rear fender skirts, exclusive roof designs, rear-seat

TV/video, and fold-down rear seat tables. The Fleetwood Limited is distinguished primarily by the relocation of its rear axle (on standardlength, unmodified 1998-1999 DeVilles, there is no visible sheet metal between the rear doors and the rear wheels).

Offered for \$51,000 to \$57,000 through the Cadillac dealer network, 781 Fleetwood Limiteds were manufactured by Superior Coach.

Specs...

- 350 cubic-inch V-8 engine
- 260 horsepower
- 4-speed automatic transmission with overdrive
- 121.5-inch wheelbase
- Suggested retail price of \$37,000

## 2001 Cadillac Eldorado ESC

The twelfth and final generation Eldorado introduced for 1992 was 11 in (279 mm) longer and 3 in (76 mm) wider than the previous generation, featuring frameless window glass and 11 in (279 mm) longer and 3 in (76 mm) wider than the previous generation, featuring frameless window glass.

Marketed in either ESC (Eldorado Sport Coupe) and ETC (Eldorado Touring Coupe) trim, the former featured a stand-up hood ornament, Cadillac crests on the rear roof pillar, 16-inch multispoke alloy wheels, and concealed exhausts. Marketed in either ESC (Eldorado Sport Coupe) and ETC (Eldorado Touring Coupe) trim, the former featured a stand-up



hood ornament, Cadillac crests on the rear roof pillar, 16-inch multi-spoke alloy wheels, and concealed exhausts. 11 in (279 mm) longer and 3 in (76 mm) wider than the previous generation, featuring frameless window glass. Marketed in either ESC (Eldorado Sport Coupe) and ETC (Eldorado Touring Coupe) trim, the former featured a stand-up hood ornament, Cadillac crests on the rear roof pillar, 16-inch multi-spoke alloy wheels, and concealed exhausts.





In 2001, GM announced that the Eldorado's 50th model year (2002) would be its last. To mark the end of the nameplate, a limited production run of 1,596 cars in red or white — the colors available on the original 1953 convertible — were produced in three batches of 532, signifying the Eldorado's first year of production.

Eldorado production ended on April 22, 2002, with the Lansing Craft Center retooled to build the Chevrolet SSR. The last Cadillac Eldorado assembled was donated to the Cadillac Museum.

Shortly after introduction Cadillac's new Northstar V8 became available in both 270 and 295 hp (220 kW) variants, replacing the previous generation's 200 hp (150 kW) 4.9 L L26.

Standard equipment included cloth upholstery, Zebrano wood trim, 6-way power front bucket seats, climate control, digital instrumentation, columnmounted gear selector, and three-position electronically adjustable "Speed-Sensitive Suspension". The ETC featured a grille-mounted Cadillac wreath and crest, "Touring Coupe" scripts on the doors, integrated fog lamps, flatface 16-inch alloy wheels, and quad exhaust outlets. Its standard equipment included gathered leather seating areas, marketed as Nuance leather; 12way power seats; Zebrano-trimmed floor console with gear selector, analog instrumentation, and specially tuned suspension.

Specs...

- 4.6-liter LD8 V8 Northstar Engine
- 4-speed automatic transmission
- 275 horsepower
- 108-inch wheelbase
- Starting sales price was \$40,436

# 2004 Cadillac CTS-V

The CTS-V is the first race car developed by GM Racing in conjunction with the new GM Performance Division, an in-house center established in 2002 to explore potential enthusiastoriented versions of production models. The CTS-V, introduced in late 2003 as a 2004 model, signaled Cadillac's entry into the low-volume, high-performance luxury car niche, and was the first vehicle to wear the division's high-performance V-series badge.

This car is the original factory prototype of the Cadillac CTS-V and was driven in SCCA (Sports Car Club of America) Race Series events by GM engineer and highly acclaimed race driver John Henrici.

John Henrici (born November 19, 1947) is a U.S. automotive engineer and noted racecar driver. He had a long and distinguished



career at General Motors, serving as Director of the GM Performance Division before retiring from GM in October 2008. In 2009 in the secondgeneration CTS-V sedan he achieved a lap time of 7:59.32 at the Nürburgring Nordschleife, which was the fastest documented time for a production sedan on factory tires until the Porsche Panamera Turbo clocked a time of 7:56 in July 2009 thanks to a heavily-tuned "LS9" EATONsupercharged 6.2-liter (380 in<sup>3</sup>) V8 engine that was borrowed from Corvette. The engine was renamed as "LSA" and it produces 556 horsepower and 551 pound-feet (747 N⋅m) of torque. The same "LSA" engine is used in the CTS-V coupe and wagon.

The V series was initially created as part of the 2000s Cadillac rebranding and the new 'Art & Science' design language to compete directly with German rivals such as BMW M and Mercedes-AMG. The first-ever V series

model was the 2004 Cadillac **CTS-V** which became a successful seller and steered Cadillac in the new direction for the following decade. The "V" was chosen as a salute dedicated to post-WWII Cadillacs that featured a Vshape ornament below the crowned wreath logo, the shape itself was never recognized as a letter back then. Most V series **Cadillac cars traditionally** include high-performance V8 engines, transmissions, revised suspension systems (MagneRide Control), revised interiors, aerodynamics, and more aggressive bodywork which is intended to improve the vehicles' aerodynamic performance as well as differentiate them from their normal production counterparts.



Cadillac has also re-entered motorsport competition with their CTS-V.R, a joint venture between GM Performance Division and Pratt & Miller race team, most famous for their role in GM's Le Mans-winning Corvette C5.R program.

The V-Series development emerged from the mindset taking over at General Motors back in the late 1990s and early 2000s, where Cadillac was struggling against imports from Europe and Japan. GM was eager to bring Cadillac back to its mantra "Standard of the World" and the new 'Art & Science' design language that matured in the late nineties auto shows gave the brand an aggressive and edgy leap ahead that looked promising at that time.

The team assigned to create the first-generation CTS recognized early on that a high-performance variant was necessary, not only to rival competition and display Cadillac's resurgence, but also to pull young and new customers to Cadillac. In 2004, the first-ever Cadillac V-Series was the CTS-V, which appeared in the movie The Matrix.

Specs...

- 6.0 Liter V-8 engine
- Supercharged
- 700 horsepower (estimated)
- 6-speed transmission
- Carbon Fiber front end and body panels
- Graphic/ceramic 4-wheel disc brakes
- 132" wheelbase

## 2006 Cadillac XLR Convertible

The Cadillac XLR is a frontengine, rear-drive, twopassenger roadster manufactured and marketed by Cadillac from 2003 to 2009 across a single generation. The XLR was noted for its power retractable hardtop, Bulgari designed interior instruments, head-up display, adaptive suspension, rear-mounted transmission and near 50/50 front-to-rear weight distribution. As Cadillac's flagship model, the XLR was introduced at the 2003 North **American International Auto** Show and began production with model year 2004.

Sharing the GM Y platform and manufactured alongside the Chevrolet Corvette in Bowling Green, Kentucky, the two cars also share hydroformed perimeter frame and composite bodywork construction. However, each had unique exterior and interior styling, suspension settings and engine. The XLR was the first production Cadillac with radarbased adaptive cruise control and the first to offer both heated and cooled seats.

The XLR was nominated for the North American Car of the Year award for 2004.



For 2006, an adaptive forward lighting system, a first-time application on a Cadillac, improves night driving vision. The system automatically adjusts headlamp direction up to 15 degrees. Vehicle speed and steering wheel angle input determine how fast and how far to turn the headlamps.

Specs...

- 4.6-liter Northstar V-8 engine
- 380 horsepower
- 6-speed automatic transmission
- 105.7-inch wheelbase
- Sold 3,203 in America
- 2004 Base price \$75,385 by 2009 base was \$86,215



## **1954 Cadillac/Oldsmobile Custom Movie Car**

At a glance, you may think you know the make and model of this 1954 car... but look a little closer. This car is one-of-a-kind and was produced for the 1977 movie The Late Show, a mystery staring Art Carney and Lily Tomlin. The front end of this convertible is a

**1954 Oldsmobile 98 Starfire and the rear is a 1954 Cadillac El Dorado.** 



Curiously, The Late Show is set in 1951 and

**1952** although both cars used to construct this vehicle were from the **1954** 

model year. This did not go unnoticed by moviegoers.

The Specs...

- 324 cubic-inch Rocket engine
- Hydromatic transmission
- Weighs 4,460 pounds



The Late Show is a 1977 American neo-noir mystery film written and directed by Robert Benton and produced by Robert Altman. It stars Art Carney, Lily Tomlin, Bill Macy, Eugene Roche,

and Joanna Cassidy. A drama with a few comic

moments, the story follows an aging detective trying to solve the case of his partner's murder while dealing with a



flamboyant new client.

In early 1976, Robert Benton brought his script to Robert Altman who, after reading it, decided to produce the film. While Benton had coauthored screenplays for several films, he was The nicest, warmest, funniest and most touching movie you'll ever see about blackmail, mystery and murder.



the sole author for The Late Show, which was also only the second film that Benton directed. Production began in spring of 1976 and wrapped in November. Lou Lombardo, who had a long relationship with Altman and edited several of Altman's films in the 1970s, edited along with Peter Appleton.



The film received many award

nominations, several for Benton's screenplay. Carney's performance won him the National Society of Film Critics Award for Best Actor. Tomlin's performance was nominated for the BAFTA Award and the Golden Globe Award, and she won the Silver Bear for Best Actress at the 27th Berlin International Film Festival.<sup>[15]</sup> The film was nominated for the Golden Bear at the Berlin Film Festival. Benton's screenplay was nominated for the Writers Guild of America Award (Best Drama Written Directly for the

Screen) and for the Academy Award for Best Original Screenplay. Benton won the award for Best Motion Picture Screenplay at the Edgar Awards.

The Late Show has a 95% rating at Rotten Tomatoes, based on 37 reviews. The consensus summarizes: "Deft direction from Robert Benton and a perfect pair in Art Carney and Lily Tomlin make The Late Show a solidly savory neo-noir treat.





### Lou Costabile My Car Story - 1954 Movie Car

### **1922 Chevrolet Sport Roadster**

Museum founder Mel Martin purchased this vehicle in 1998 to drive in the 3,000-mile Great American Race. This was his second year participating in this world-famous cross-country auto race.

Believed to be one of only four survivors, the car has a two-person cockpit. Coach-built Chevrolets are all but unknown today, but in 1922 the Mercury Body Company did build sheet metal for a Chevrolet "Superior Chassis." The cost back then was \$265 to transform a 26horsepower Chevy chassis into a spiffy speedster.

It is believed to be 1 of 4 survivors

Specs...

- Modified 4-cylinder engine
- Cylinder head by Mercury











## **1928 Chevrolet Depot Hack Woody**

The 1928 Chevrolet Depot Hack Woody was a unique vehicle from the Chevrolet Series AB National lineup, often referred to as the precursor to the modern station wagon.

The depot hack was designed to transport passengers and their luggage from railroad stations to hotels, resorts, or estates, functioning as an early taxi or shuttle. The term "depot hack" derives from its primary use at train depots.

Known as a "woody" due to its woodbodied construction, the depot hack featured a wooden frame and panels, often custom-built by coachbuilders. These vehicles were open-bodied with multiple seats to accommodate passengers and cargo. The wooden body was typically constructed from materials like maple or mahogany, often restored at significant cost due to wood deterioration over time. The wood gave it a furniture-like aesthetic, a hallmark of early woody vehicles. Many depot hacks were built on a Chevrolet truck chassis sent to specialized coachbuilders (e.g., Hercules, Martin Parry, or Mifflinburg) for custom wooden bodies.

Depot hacks were descendants of horsedrawn express wagons and evolved into the station wagon by the mid-20th century. They were essential in an era when personal automobiles were luxury items, and public transportation like trains was common.

In 1928, Chevrolet was the top-selling automaker, producing over 1.19 million vehicles compared to Ford's 800,000,





partly due to Ford's Model A production issues. The depot hack was part of Chevrolet's diverse offerings, which included various truck and utility bodies. The depot hack's design influenced later station wagons, with the term "station wagon" emerging around the late 1920s. By the 1930s, manufacturers like Ford began producing more standardized woody wagons for individual use.

### Specs...

• Engine: The 1928 model was equipped with a 171 cubic-inch, overheadvalve (OHV) inline 4-cylinder engine, producing 35 horsepower. This was the final year for the 4-cylinder in this model before Chevrolet introduced the six-cylinder "Stovebolt" engine in 1929.

- Transmission: It featured a 3-speed selective manual transmission.
- Brakes: The 1928 model was notable for introducing four-wheel mechanical brakes, a significant advancement over earlier models.

• Wheelbase: The vehicle rode on a 107-inch wheelbase, typical of the Series AB National.

• Wheels: Equipped with 21-inch steel disc wheels, often fitted with 4.50/4.75-21 blackwall tires.

• Weight: Varied due to custom coachwork but generally exceeded 2,500 lbs.

## **1928 Chevrolet Tudor Sedan Custom Resto-Mod**

This 1928 Tudor Sedan customization was a 3-year father and son project car by Ben and Matthew Romanski. According to the Ben Romanski, "the drivetrain and engine were updated to make this vehicle roadworthy while focusing on keeping the outside body and inside interior closer to original."

In addition to the Chevy small block engine that you can see, some of the modern touches they made to this beautiful resto-mod include:

- Chevy S-10 rear end
- Reverse Corvair steering box
- HEI Distributor
- Edelbrock 2-barrel carburetor
- Flow Master exhaust
- Rear drum brakes
- Front disc brakes
- E-Z wiring harness
- Classic instrument gauges
- Vintage air conditioning
- Boss Bluetooth and 4-Channel Amplifier

We look forward to seeing future projects from the Romanski team!

Specs...

- 283 cubic-inch V-8 Chevy engine
- 180 horsepower
- 4-speed 700R4 automatic transmission
- 103.5-inch wheelbase





## **1929 Chevrolet Popcorn Truck (\*)** Step Back in Time with the 1929 Popcorn Truck

A 1929 Chevrolet popcorn truck is a vintage commercial vehicle designed and used primarily for selling popcorn and other snacks.

Experience the charm and nostalgia of the roaring twenties with our meticulously restored 1929 Popcorn Truck. This vintage beauty captures the essence of early American street food culture, delivering not just delicious popcorn but a slice of history.

The 1929 Popcorn Truck is a testament to the ingenuity of the early 20th century. During the late 1920s, popcorn gained immense popularity as an affordable, tasty treat. Vendors capitalized on this trend by outfitting trucks to serve fresh, hot popcorn to eager customers on the go. Our truck is a shining example of this era, restored to its original splendor.

These trucks were primarily used at fairs,





carnivals, amusement parks, and public events. They served as a mobile concession stand, bringing snacks to large crowds. Today, while no longer

common, some restored popcorn trucks are used for nostalgic events, parades, and as attractions at museums and car shows.

### Features

- Classic Design: Featuring the authentic 1920s aesthetic, with original detailing and vibrant paintwork.
- Hand-Crafted: Restored with precision to maintain its vintage charm, from the brass fittings to the hand-painted signage.
- Functional Equipment: Equipped with a traditional popcorn machine, ensuring that each batch is popped to perfection.
- Portable and Practical: Designed for mobility, allowing you to bring a piece of history to any event or location.

Specs...

- Dimensions: Length 14 feet, Width 6 feet, Height 8 feet
- Weight: 3,200 lbs
- Engine: Original 4-cylinder engine, 194 CI OHV inline 6-cylinder engine
- Capacity: Holds up to 50 pounds of popcorn kernels
- Electricity: Updated to accommodate modern electrical standards for safe operation
- Believed to be 1 of 50 made by Dunbar & Co. of Chicago, Illinois
- Manual transmission
- Wood cabin with a full-size door
- Arched roof canopy with visor and brass trim bars
- Thompson's Pop Corn window signage with other lettering
- Bay-style service window
- Beveled glass
- VIN / Serial: 21LQ3587

### **Perfect for Any Event**

- Bring the allure of the 1920s to your next event with the 1929 Popcorn Truck. Ideal for:
- Festivals: Add a vintage touch to community gatherings.
- Weddings: Create memorable moments with a unique snack option.
- Corporate Events: Impress clients and employees with a charming, retro treat.
- Parties: Make any celebration special with freshly popped popcorn.

- Value: The value of a 1929 Chevrolet popcorn truck can vary greatly depending on its condition, originality, and the extent of restoration. Highly restored models can fetch significant prices among collectors.
- Restoration: Restoring a 1929 Chevrolet popcorn truck involves meticulous attention to detail, sourcing period-correct parts, and sometimes custom fabrication of unique components.

# 1929 Chevrolet Series 2AC International Phaeton (\*)

The Chevrolet Series AC International is an American vehicle manufactured by Chevrolet in 1929 to replace the 1928 Series AB National. In all, 1,328,605 Series ACs were manufactured in a range of ten body styles, with 73,918 from **Oshawa.** The Series AC was distinguished from the AB by the introduction of a new six-cylinder engine, the first Chevrolet with a sixcvlinder since the 1915 Chevrolet Series C Classic Six. Advertised as "A Six for the price of a Four", it was only \$10 more than the outgoing four-cylinder Series AB (\$177 in 2023 dollars). To simplify production operations, each factory was designated one body style for national consumption and shipped by railroad to major American cities. The serial number of origin was relocated to the right body sill underneath the rubber floormat except for the roadster and phaeton, which were inscribed on the right side of seat frame. Prices listed started at US\$525 for the roadster or phaeton (\$9,316 in 2023 dollars) to US\$725 for the Landau Convertible (\$12,865 in 2023 dollars).

The Series AC was powered by Chevrolet's new overhead valve





194 cu in (3,180 cc) six-cylinder engine, producing 46 hp (34 kW) @ 2400 rpm. The engine became known as the "Stovebolt Six" because single-slot screws were used to attach covers for the pushrod and overhead valves to the engine block. The Oakland Six flathead was replaced by the Oakland V8

in 1929 and the companion junior brand Pontiac was introduced in 1926 with the Series 6-27 and the splitflathead Pontiac straight-6 engine, making room for Chevrolet to offer their new Chevrolet straight-6 engine. Further up the brand hierarchy Oldsmobile Six continued to be offered until 1938, having been introduced in 1917.



Standard items included a banjo-style rear axle, single plate dry disc clutch, four-wheel mechanical brakes with pressed steel 20"-disc wheels. Options offered were front and rear bumper, to be considered standard equipment in later years, rear mounted extendable trunk rack, heater for passenger compartment, cigar lighter, and the introduction of a hood ornament. In May 1925 the Chevrolet Export Boxing plant at Bloomfield, New Jersey was repurposed from a previous owner where Knock-down kits for Chevrolet, Oakland, Oldsmobile, Buick and Cadillac passenger cars, and both Chevrolet and G. M. C. truck parts are crated and shipped by railroad to the docks at Weehawken, New Jersey for overseas GM assembly factories.

### Specs...

- Series 2AC
- Assembled: Tarrytown Assembly
- 4-door 5-passenger phaeton
- 194 cubic-inch inline 6-cylinder engine
- 46 horsepower
- Pushrod-operated overhead valves
- 3-speed manual transmission
- Solid axles with leaf springs
- Mechanically operated four-wheel drum brakes
- 107-inch wheelbase
- Original price was \$525 for the Phaeton

### 1929 Chevrolet 2-Door Sedan Custom (\*)

Yet another example of the customization of a vintage car, this 1929 Chevy has been heavily modified and modernized. In addition to a modern V-8 engine and automatic transmission, this car has a full custom interior and contemporary automotive technology.

The Chevrolet Series AD Universal or Chevrolet Universal AD is a Chevrolet car which began sales in 1930. Available in a variety of body types including as a 2-door coupe, 4-door sedan and a delivery van. Total production was down due to the Wall Street Crash of 1929 while 864,243 were manufactured and 39,773 came from Oshawa. The seven-millionth Chevrolet since 1912 was built May 28, 1930 at Flint Assembly

The Series AD was launched as replacement for the 1929 Series



AC models. Sales dropped by over 200,000 to 640,980 vehicles for the year.

The AD retained the new "stovebolt" overhead valve 194 cubic inches (3.2 L) six-cylinder engine from the Series AC, but with bigger intake valves and smaller exhaust valves, along with a new manifold, raised power from 46 hp (34 kW) to 50 hp (37 kW). The suspension now included hydraulic shock absorbers and the fuel gauge was moved from the tank to the dash panel, along with an angled, non-glare windshield and new instrument gauges with circular shapes and black faces, smaller 19" wheels using wire spokes while hickory spoke wheels were now optional. The previous Imperial Sedan was replaced with the Special Sedan, which separated the name and image from top level Cadillac, while the process of dedicating one body style to Chevrolet factories continued. In 1930, Chevrolet bought the Martin-Parry Body Company who supplied chassis and passenger

compartment trucks with a factory-installed bed. In May 1925 the Chevrolet Export Boxing plant at Bloomfield, New Jersey was repurposed from a previous owner where Knock-down kits for Chevrolet, Oakland, Oldsmobile, Buick and Cadillac passenger cars, and both Chevrolet and G. M. C. truck parts are crated and shipped by railroad to the docks at Weehawken, New Jersey for overseas GM assembly factories.

Specs...

- 350 cubic-inch V-8 engine
- 200 horsepower (estimated)
- 3-speed Turbo-400 automatic transmission
- 107-inch wheelbase

# 1932 Chevrolet Confederate (\*)

The Chevrolet Confederate was manufactured in 1932 to replace the 1931 Independence. Production slipped significantly from over 600,000 cars in 1931 to 313,395 in 1932 as the Great Depression continued, but was still sufficient for Chevrolet to retain first place in the American car sales. Sales were also affected by cross-town rival Ford introducing the Ford V-8 coupe and sedan. The Confederate is powered by the "Stovebolt Six" with a downdraft carburetor.

A three-speed synchro-mesh transmission with "Free Wheeling" mode was standard, which permitted the car to coast when the drivers foot was lifted from the accelerator.

The Series BA carried over much from the Series AE and the main external differences were the sloping of the windshield and the



removal of the external visor above. Once model year 1932 Chevrolet offered fourteen different body style choices, which were all supplied by Fisher Body and continued the program of devoting production to different factories for national consumption. The choices were now broken into "Standard" and "Deluxe" and one distinguishing feature was that on either side of the hood the previous louvers were replaced by opening vents, finished in a distinctive chrome on DeLuxe models. Flint Assembly, Buffalo Assembly and Janesville Assembly provided more than one coachwork choice due to production capacity. In May 1925 the Chevrolet Export Boxing plant at Bloomfield, New Jersey was repurposed from a previous owner where Knock-down kits for Chevrolet, Oakland, Oldsmobile, Buick and Cadillac passenger cars, and both Chevrolet and G. M. C. truck parts are

crated and shipped by railroad to the docks at Weehawken, New Jersey for overseas GM assembly factories.

It remained powered by the 194 cu in (3,180 cc) "Stovebolt" six-cylinder engine, but now upgraded with a downdraft carburetor and a higher compression ratio to produce 60 hp (45 kW). A three-speed synchro-mesh transmission was fitted and a "Free Wheeling" mode called Wizard Control was standard, which permitted the car to coast when the driver's foot was lifted from the accelerator.

The electrical system was 6 Volt Negative ground, dual front (referred to as "Town and Country") horns and a passenger side Brake and Parking lights were options that could have been added on at either the dealership or factory. Turn signal systems had not yet been implemented, the generator used a "Cut-out" relay which only used 1 wire for its generating system. Voltage regulators weren't implemented until 1935.

This 1932 Chevrolet Confederate is all original and sold for \$495 in 1932.

Specs...

- 194 cubic-inch "Stovebolt Six" six-cylinder engine
- 60 horsepower
- 3-speed transmission
- Borg-Warner overdrive
- 7,566 Built

# 1938 Chevrolet 1 <sub>1/2</sub> Ton Truck

My Truck is a 1938 Chevy 1 <sup>1</sup>/<sub>2</sub> ton truck which started its life as a U.S. Postal truck. According to my research, it was used as a delivery truck for mail for many years in the Los Angeles region. At one point in time the truck was used in scenes of a TV series called the Desert Fox as a military vehicle. It was later sold to an Arizona resident and was relocated here.

I purchased the truck in 1987 it was drivable but in very poor shape. I researched its original use but decided to remove all the sheet metal from the outside which revealed that the wood structure underneath was rotten and falling apart. At the time the truck had only one seat for the driver with a door next to it in order to enter into the rear cargo area. All of the wood in the doors, floor, sides and roof were severely damaged by years of water damage and many areas had been replaced with plywood. I decided to make it a usable vehicle to use in parades for the grandchildren and other stationary events.

It took over 25 years of love, sweat, time and money. I was a working Firefighter for 20 of those years and in my spare time, the reconstruction began. I disassembled the entire vehicle piece by piece complete to the chassis. I sandblasted the frame, removed the wheels and had a body shop rework all of the metal body parts. It took several months to build each door from solid oak and to customize the window frames to contain operable windows. The rear of the truck is







also comprised of solid oak. I had researched catalogs for many needed parts and the progress was very slow for the next several years. I finally got the engine, transmission and rear end rebuilt.

I then began on the fuel system, wiring, lights and cooling system. All of the chrome parts were re-plated and the wheel rims were powder coated. New tires were ordered and installed. A local shop painted the exterior for me.

The truck was finally ready for its debut and was in the St. Patrick's Day parade along with the grandkids at which time they passed out candy. It has been at several local car shows including the Melrose Ave days. Then life took a turn. A year later our daughter suddenly passed away 8 days after delivering our last granddaughter, Naomi. The time and enthusiasm to maintain "Giggles" was lost due to these circumstances and new obligations.
# 1934 Holden Series DC Standard Four-Door Phaeton (\*)

Originally tagged as a 1934 Chevy Series DC Standard Four-Door Phaeton (Fact Checking information obtained with multiple sources regarding the VIN tag's reference to Holden)

Chevrolet offered buyers a choice of two extensive model line-ups in 1934. The Standard Series was built on a five-inch shorter wheelbase than the Master models. Surprisingly, only in the Series DC Standard models was a Phaeton



available. The Standard Series was only mildly restyled in 1934 with a longer hood, more streamlined horizontal louvers fitted and a fancier hood ornament.

Standard models were also distinguishable by painted black headlamp buckets, fewer vertical bars in the grille and less metal trim. A top speed of 80 miles per hour was possible in a Standard Chevrolet.

Chevrolet once again beat Ford in the sales race. Chevrolet produced 556,666 vehicles in 1934, with 99,499 being



Standard models. Yet, for rarity in a Chevrolet you need look no further than this Chevrolet Phaeton. Only 234 Phaetons were built in 1934.

This car has been used by the museum in many parades, including several times for the Grand Marshall of the annual APS Electric Light Parade in downtown Phoenix. The VIN tag suggests that it is actually a General Motors-Holden manufactured by Chevrolet Motor Company SN 107145

## Info on the Holden Company

Holden, formerly known as General Motors-Holden, was an Australian subsidiary company of General Motors. Founded in Adelaide, South Australia, it was an automobile manufacturer, importer, and exporter that sold cars under its own marque in Australia. In its last three years, it switched entirely to importing cars. It was headquartered in Port

Melbourne, with major industrial operations in the states of South Australia and Victoria. The 164-year-old company ceased trading at the end of 2020.

Holden's primary products were its own models developed in-house, such as the Holden Commodore, Holden Caprice, and the Holden Ute. However, Holden had also offered badge-engineered models under sharing arrangements with Nissan, Suzuki, Toyota, Isuzu, and then GM subsidiaries Opel, Vauxhall Motors, and Chevrolet. The vehicle lineup had included models from GM Korea, GM Thailand, and GM North America. Holden had also distributed GM's German Opel marque in Australia in 2012 and 2013.

Holden was founded in 1856 as a saddlery manufacturer in South Australia. In 1898, it moved into the automotive field. It became a subsidiary of the United States—based General Motors (GM) in 1931, when the company was renamed General Motors-Holden's Ltd. It was renamed Holden Ltd in 1998 and adopted the name GM Holden Ltd in 2005.

## **Early history**

In 1852 James Alexander Holden emigrated to South Australia from Walsall, Staffordshire, U.K, and in 1856 established J. A. Holden & Co., a saddlery business in Adelaide. In 1879 J. A. Holden's eldest son Henry James (H. J.) Holden, became a partner and effectively managed the company. In 1885, German-born H. A. Frost joined the business as a junior partner and J. A. Holden & Co became Holden & Frost Ltd. Edward Holden, James' grandson, joined the firm in 1905 with an interest in automobiles. From there, the firm evolved through various partnerships, and in 1908, Holden & Frost moved into the business of minor repairs to car upholstery. The company began to re-body older chassis using motor bodies produced by F. T. Hack and Co from 1914. Holden & Frost mounted the body, and painted and trimmed it. The company began to produce complete motorcycle sidecar bodies after 1913. After 1917, wartime trade restrictions led the company to start full-scale production of vehicle body shells. H. J. Holden founded a new company in late 1917, and registered Holden's Motor Body Builders Ltd (HMBB) on 25 February 1919, specializing in car bodies and using the former F. T. Hack & Co facility at 400 King William Street in Adelaide before erecting a large four-story factory on the site.

By 1923, HMBB were producing 12,000 units per year. During this time, HMBB assembled bodies for Ford Motor Company of Australia until its Geelong plant was completed. From 1924, HMBB became the exclusive supplier of car bodies for GM in Australia, with manufacturing taking place

at the new Holden Woodville Plant (which was actually in the adjacent suburb of Cheltenham). These bodies were made to suit a number of chassis imported from manufacturers: including Austin, Buick, Chevrolet, Cleveland, Dodge, Essex, Fiat, Hudson, Oakland, Oldsmobile, Overland, Reo, Studebaker, and Willys-Knight.

In 1926, General Motors (Australia) Limited was established with assembly plants at Newstead, Queensland; Marrickville, New South Wales; City Road, Melbourne, Victoria; Birkenhead, South Australia; and Cottesloe, Western Australia using bodies produced by HMBB and imported complete knock down chassis. In 1930 alone, the still independent Woodville plant-built bodies for Austin, Chrysler, DeSoto, Morris, Hillman, Humber, Hupmobile, and Willys-Overland, as well as GM cars. The last of this line of business was the assembly of Hillman Minx sedans in 1948. The Great Depression led to a substantial downturn in production by Holden, from 34,000 units annually in 1930 to just 1,651 units one year later. In 1931, GM purchased HMBB and merged it with General Motors (Australia) Pty Ltd to form General Motors-Holden's Ltd (GM-H). Its acquisition of Holden allowed General Motors to inherit an Australian identity, which it used to cultivate nationalist appeal for the firm, largely through the use of public relations, a then novel form of business communication which was imported to Australia through the formation of General Motors (Australia) Limited. Throughout the 1920s, Holden also supplied 60 W-class tramcar bodies to the Melbourne & Metropolitan Tramways Board, of which several examples have been preserved in both Australia and New Zealand.

Specs...

- 181 cubic-inch straight 6-cylinder engine
- 60 horsepower
- 3-speed manual transmission
- Carter 1V Model W1 carburetor
- 107-inch wheelbase
- Original price of \$425

## Revision May 20, 2025 rev U 1939 Chevy Master Deluxe Sedan Resto-Mod

The Chevrolet Master and Master Deluxe are American passenger vehicles manufactured by Chevrolet between 1933 and 1942 to replace the 1933 Master Eagle. It was the more expensive model in the Chevrolet range at the time.

Starting with this generation, all GM cars shared a corporate appearance because of the Art and Color Section headed by Harley Earl

But this version of the 1939 Master Deluxe has anything but a corporate appearance.

This resto-mod custom features modern technology and comfort with the styling of a '30s classic. In addition to a modern drivetrain, some of the contemporary touches include air conditioning, custom leather interior, and keyless entry.

The Specs...

- 350 cubic-inch V-8 engine
- Edelbrock heads and intake
- 700R4 3-speed automatic transmission with overdrive by Monster Transmission & Performance
- Rack and pinion steering
- 4-wheel disc brakes
- 112.2-inch wheelbase



# **1949 Chevrolet Fleetline Deluxe** Mel's first car that he could buy new for cash!

"We'll Just Paint It" Bruce Johnstone #28991 Black Hill Region, Rapid City, South Dakota Featured on this month's front cover

There are three things you should never do. Never lie to your mother and never buy a car that just needs paint. That's where this saga begins. While paging through one of those auto shopper magazines (which really should be illegal reading material to people with spare time), we saw an ad for a 1949 Chevrolet Fleetline Deluxe that sounded pretty nice. It was located in Grand Forks, North Dakota, which isn't far from our home in Rapid City, South Dakota so we decided to check it out.

After a phone call with some questions, the car seemed to be just what we were looking for and a tentative deal was struck. The current and second owner had bought the Chevy from the original owner, a farmer from a town a little west of Grand Forks, North Dakota. Thankfully a fellow VCCA member from the Black Hills Region offered to check out the car and pick it up as he was going to be in Grand Forks that weekend. We gave him our trailer and some money and off he went. As usual, the owner had great plans to restore this Chevy, but due to an unforeseen little problem called "losing his job," he decided to sell it. Money changed hands and the deal as done.

When the Fleetline Deluxe arrived in Rapid City a couple days later, we were pleased to see an all-original car with its factory Live Oak







Green paint intact; it was, however, beginning to thin in spots from normal wear. There were a couple dents in the rear fenders, some dented stainless

trim, a decent interior and new radials, this car was basically ready for the road.

The original owner must have been very proud of his car. Unlike most Chevrolets of the time, this one was decked out with accessories. On and in the car were twelve genuine Chevrolet options. These include a windshield visor, front and rear bumper guards, deluxe hood ornament, back-up light, deluxe steering wheel, deluxe radio, deluxe heater, turn signals, gas tank whistle, clock, oil filter and the visors for the side windows.

Our plan was to fix a couple of the dents, paint it and have a fun driver. Well...that was

the original plan. Two years later after a complete, every nut and bolt off the car, with parts everywhere restoration, it was done. Approximately 70% of the parts that were replaced in the restoration were NOS thanks to Ebay. The remainder we rebuilt or purchased reproduced from Chevs of the 40's out in Washington. No one really understands how or why restorations get out of control or what chronic

disease possesses a person to get carried away like this or if there is a cure. Cars are an addiction unlike drugs. Eventually in the end drugs will kill you, but cars just keep you broke and wondering where you're going to store the stupid things.

With the restoration finally complete and the paint barely dry, we loaded the now factory fresh Chevrolet into an enclosed trailer that night and the next morning headed to Springfield, Illinois to attend the 40th VCCA National Meet.







### Specs...

## **General Information**

- Model: 1949 Chevrolet Fleetline Deluxe
- Body Styles: 2-door and 4-door fastback sedan
- Trim Levels: Special (base) and Deluxe (higher-end)

## Engine

- Type: 3.5L (216.5 cu in) Inline-6
- Horsepower: 90 hp @ 3,300 rpm
- Torque: 174 lb-ft @ 1,200 rpm
- Compression Ratio: 6.6:1
- Carburetor: Single-barrel

## Transmission

- Standard: 3-speed manual with column shift ("Three on the Tree")
- Optional: Powerglide 2-speed automatic (introduced in 1950)

## **Chassis & Suspension**

- Wheelbase: 115 inches
- Overall Length: 197.75 inches
- Width: 74 inches
- Front Suspension: Independent coil springs
- Rear Suspension: Leaf springs with solid axle

## **Brakes & Wheels**

- Brakes: 4-wheel hydraulic drum brakes
- Tires: 6.70 x 15-inch
- Wheels: Steel with hubcaps

## Performance

- Top Speed: ~85 mph
- **0-60 mph:** ~20 seconds

### Features

- Chrome trim and grille (on Deluxe model)
- Split windshield
- AM radio (optional)
- Heater and defroster (optional)
- Two-tone paint available

**Accessories Catalog** 

































### **Owner's Manual**



#### Dear Chevrolet Owner

We are happy to place in your hands this Owner Manual which, if you will read and study, will acquaint you with the Chevrolet car that you have just purchased.

The Dealer who sold and delivered this fine car to you and we who manufactured it are proud of the product and have a large and willing interest in maintaining your continued satisfaction in its operation. Careful consideration by you of this fine product will guarantee many miles of good, trouble-free transportation.

The purpose of this manual is to acquaint you with your new Chevrolet car. It is not a book that covers all of the mechanical features and it does not contain a lot of technical phrases of construction. Instead, it tells where the gauges, dials, switches and controls are located, a general outline of where your car should be lubricated along with a maintenance schedule that will keep the car in proper operating condition and some general information items which are of interest to you as a driver.

At the end of 1000 miles of driving, you should take your car back to the Dealer who delivered it to you for a physical check-up and the 1000-mile inspection service to which you are entitled. However, if at any time before or after this 1000-mile period your car does not perform the way it should, visit your Dealer who will be very glad to diagnose the trouble and to assist and advise you in what should be done to regain its peak performance.

CHEVROLET MOTOR CAR DIVISION General Motors Corporation

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### Ignition Switch

The ignition switch, located near the lower edge of the instrument panel to the right of the steering column is a three position switch. There are two "off" positions, one to the right and one

to the left of the "on" (vertical) positions one to the right and one to the left of the "on" (vertical) position and the key may be removed in any of these positions. When the ignition is turned off by turning witch clockwise, the key may be removed allowing ignition to be turned "ON" or "OFF" without use of key. When the ignition is turned off by turning switch counterclockwise and removing the key, the ignition is locked "OFF".

### Starter Control

The starter control is of the push button solenoid type with the starter button located just to the left of the instrument cluster and directly above the throther knob. When starting, hold accelerator pedal down halfway while pressing starter button. Should the engine be flooded, hold the accelerator down to the toe-board and press starter button



until engine starts. Release the starter button as soon as the engine starts and never press the button with the engine running or serious damage may result.

### Choke Control

The choke control knob is located to the right of the instrument cluster and just above the ignition switch. To pro-vide a richer fuel mixture to assist in



starting a cold engine and during warm up pull choke knob out part or all way depending upon climatic con-ditions. This automatically opens the throttle to provide for smooth engine operation when choking is required.

#### **Ihrottle Control**

The throttle control knob is located to the left of the instrument cluster and just below the starter button. Pull control knob out to open throttle.

### Headlight Control

A push-pull knob for headlight con-trol is located to the left of the starter button and throttle control knob.



When the knob is publed out to the first position the parking ights, tail and license plate lamps are turned on. When the knob is pulled out to the last position, the headlamps, either the country (upper) or traffic (lower) beam dependent on the operation of the (upper) or traffic (lower) beam dependent on the operation of the beam selector switch located on the toe-board by the driver's left foot, are turned on. When using the country (upper) beam for driv-ing, a red beam indicator, located directly below the numeral 50 on the speedometer dial, lights up. Never use this beam with other cars approaching. Instrument lights ordinarily are on when the knob is pulled out to either the first or second position, although they can be dimmed or turned off by rotating the knob to the right.

### Gearshift Lever

return to its normal position.

The adjustment of the front seat is accomplished by a fingertip control lever located at the left side end of the seat frame. A light

downward push releases the seat allowing the seat assembly to be moved backward or

Front Seat

The synchro-mesh transmission selector lever is mounted at the upper end of the steering column beneath the steering wheel. Lift the knob and move down-



Operation

ward to engage low gear or upward to engage reverse. Depress the knob and move it upward to engage second gear or downward to engage high gear.

to the right of the steering column. To apply brake, pull handle straight back. To release, simply rotate handle clockwise and it will

Adjustment

forward until the position is comfortable. Releasing pressure on the lever locks the seat in the selected position.

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Hand Brake

The hand brake lever operates inde-pendently of the regular foot operated

braking system and applies brake pres-sure to the rear wheels only. The horizontal L-shaped handle is conveni-ently located below the instrument panel

# Ventilating System

An all weather ventilating system which permits controlled ventila-tion even under adverse weather conditions when windows must be closed is a feature of your new Chevrolet. Outside air now enters through the radiator grille at the front of the car and is delivered into the body by an air duct extending from the radiator grille to the body dash on each side of the car. Air volume is controlled by means of a butterfly valve mounted in each of the air duct lines. These valves are individually operated by knobs mounted just below the center of the instrument panel. Either the right or left hand ventilator may be opened individually, or both valves opened as desired.

NOTE: To keep out offensive odors and exhaust gases when traveling in congested traffic or when parked behind a car having its motor running, shut the outside air intake valves by pushing vent knobs in. Exhaust gases contain carbon monoxide. See Note on page 14.

### Windshield Wiper Control

The windshield wiper control knob is located to the right of the instrument cluster and above the choke control button. The wind-shield wipers are operated by turning this knob clockwise. A Chevrolet windshield washer may be installed to assist in cleaning windshield while driving when it may become smeared from road spray of passing cars. To operate washer, turn wiper control knob counter-clockwise and water will be sprayed on the windshield to assist the wipers in cleaning

#### Cigarette Lighter and Ash Jray



A drawer type ash tray and a cigarette lighter centered below it are conveniently

igner centered below if are conveniently grouped together beneath the clock and just to the right of the radio grille on Deluxe models. The lighter is operated by pushing it in and when heated it will click out for use. The ash receiver has a cigarette snuffer which is depressed for removal and emptying.



## Hood Control

The hood lock is released by a knob under the left side of the instru-ment panel. Pulling on the knob releases the lock, allowing the hood to raise sufficiently to enable release of safety catch located under forepart of hood nose.



## Glove Box

The glove box is located at the extreme right of the instrument panel and is equipped with a key lock mounted on the upper edge of the door. If locked, insert key in lock, turn one quarter turn and depress lock cylinder to open. An automatic light provides illumination of interior on all Deluxe models.

#### Radio Control Panel When Chevrolet cars are equipped with



radios, the controls are neatly and con-veniently located just to the left of the radio grille. Two sets are used, one having two control knobs and the other having two control knobs plus five selector buttons for rapid station tuning. The right control knob on both sets is the "ON" and "OFF"

and volume control with a tone control ring directly behind it. The left control knob is for manual tuning. On sets equipped with five selector buttons depress any one of the buttons for station selection or tune manually.

### Rear View Mirror

A rear view mirror is located near the top of the windshield division moulding except on convertibles, and may be rotated on its mounting to accommodate all drivers and seat positions.



Sun visors are designed so as to enable them to be moved in and out on their support rods as well as revolved to the side except on con-vertibles to better shut off the glare from the sun.

### Speedometer

The speedometer located in the center of the instrument cluster is centered in front of the driver and has the ammeter, gasoline, water temperature and oil pres-



sure gauges arranged in a semi-circle around it. The speedometer is of the circular type and registers both speed and cumulative mileage.

## Gasoline Gauge

The gasoline gauge indicates the amount of fuel in the tank only when the ignition switch is turned "ON."

### Charging Indicator

This gauge indicates the amount of electrical current that is supplied to or withdrawn from the storage battery. Unless the battery is fully charged, the pointer should bear toward the + (plus) side when the car is operated 15 to 20 miles per hour. The gauge pointer should bear toward the - (minus) side only when engine is idling or when accessories are being used with the engine shut off.



This gauge indicates the approximate temperature of the coolant circulating through the cooling system. The pointer should register within a 140-180 degree range except during long continuous driving in warm weather. Should the pointer enter the red zone, the engine should be stopped and the cause investigated immediately.

## Oil Pressure Gauge

The oil pressure gauge should always indicate pressure while the engine is running. If no pressure is indicated, stop the engine immediately and have the cause investigated.

### Door Hold Open

A door hold-open device is incorporated in each door. When a door is fully opened this device prevents it from closing of its own weight while entering or leaving the car. Doors may be closed

easily from the hold-open position by a firm push or pull, no release is required.

#### Door Ventipane

The ventilators, front and rear, are operated directly by a combined lock and pull-to handle located on the base of the ventilator frame. A spring loaded pawl makes the lock positive and theft resistant, while a spring loaded friction device in the ventilator lower pivot holds the ventilator open to any position selected.

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## Select Your Gasoline

The Chevrolet engine is primarily designed to operate satisfactorily on the so-called "regular" grades of gasolines. Premium grades of fuel, with their higher anti-knock qualities, may be used, but little is gained in performance or economy as the compression ratio of the engine is not high enough to demand the use of premium fuel.



### Gasoline Filler Cap

The gasoline filler cap is located under the spring loaded lid in the left rear fender except on Station Wagon which has an exposed cap. Should you wish to take extra precaution against theft of fuel a locking cap is available as an accessory from your Dealer.

Engine Oil

Use of the proper engine oil is of great importance in obtaining maximum performance and satisfaction from your car and in the selection of the proper brand of oil it is essential to consider the reputation of the refiner or marketer.

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There are three types of oils available for use in automobile engines; these are Regular, Premium and Heavy Duty oils. For maximum protection of your Chevrolet engine under all driving conditions, it is recommended that Premium or Heavy Duty oils be used. The Regular type oils may be used under moderate or light driving conditions.

### Engine Oil Level Rod

The oil level rod is a bayonet type indicator located on the right side of the crankcase. This rod is marked "Full" and "Add Oil" and these notations have broad arrows pointing to the level lines. Check oil level

each time gas is purchased and maintain level between these two lines. Fill or add oil through filler cap hole on top of valve cover. Avoid overfilling as this will cause the oil to foam.

## Radiator Filler Cap

The radiator filler cap is located under the hood. The coolant should be checked every time gasoline is purchased and kept to a level one inch below the filler neck. The filler neck is so designed that a pressure cap may be installed if owner so desires.

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Your Chevrolet car has been designed to furnish you many thousands of miles of motoring pleasure.

In order to maintain its high standard of performance and efficiency, special care should be given for the first two thousand miles as to the speed at which the car is driven and also to lubrication.

The crankcase of the engine in this vehicle as received by you is filled with a light body "breaking-in" oil. Use this oil only during the breaking-in schedule shown below. It should not be used after completion of the breaking-in schedule.

Check the oil frequently during the first 500 miles and at the end of 500 miles, drain the crankcase-while hot-and refill -using the grade of oil recommended in "Engine Lubrication."

To properly break-in the moving parts of the engine do not drive faster than:

40 miles per hour for the first 100 miles

50 miles per hour for the next 200 miles

60 miles per hour for the next 200 miles

Continuous driving at high speeds should not be attempted until the vehicle has been driven 2,000 miles.

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#### Warning - Carbon Monoxide

Never start or run an engine in a closed garage. Avoid inhaling gases when any concentration of these is present in the air, i.e., in a garage, in congested traffic, or when stopped closely behind a vehicle with its motor running. Exhaust gases may have strong odors which normally should give warning of their presence. However, the exhaust gases from some vehicles may not be noticeable under certain conditions and the senses of people react differently. Exhaust gases contain a percentage of carbon monoxide which is a poisonous gas that, by itself, is tasteless, colorless and odorless.

#### Jo Start the Engine

- Before starting engine make sure transmission shift lever is in neutral position.
- 2. Depress the clutch pedal.
- 3. Turn "ON" the ignition switch.
- 4. Hold accelerator pedal down halfway and press in on the starter button until the engine starts. Then release the button. NOTE: Do not pump the accelerator pedal before or during the use of the starter as this will cause difficult starting.
- Under cold starting conditions pull the choke button out part or all the way depending on climatic conditions. If the engine is warm or during summer weather it is not generally necessary to use the choke at all.
  - CAUTION: When starting a cold engine, it will be noted that the oil pressure gauge in the instrument cluster will register a high pressure. Allow engine to idle until engine warms up and pressures will not be affected by changes in engine speed.
- 6. In case the engine becomes overchoked or flooded at any time, be sure the choke button is all the way in then press the foot accelerator down fully and operate starter continuously until engine starts. This will eliminate further choking. If it becomes desirable to again choke the carburetor for starting follow the procedure in step 5.

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### Gear Shifting

The gearshift lever, mounted on the steering column, may be placed in any one of five positions – neutral, reverse, first, second or third. The operation of the gearshift lever in engaging the gears consecutively is as follows:



- 1. See that gearshift lever is in neutral position (lever may be raised up and down).
- 2. With clutch pedal depressed start engine.
- First speed-Depress clutch pedal and raise lever toward steering wheel and then move downward until it is fully engaged in first gear location; then gradually release clutch pedal.
- Second speed-Depress clutch pedal, push lever upwards, causing lever to cross through neutral moving away from steering wheel and engage second gear position. Release clutch pedal.
- Third speed-Depress clutch pedal, pull lever downward until lever has reached the end of its travel into third gear position. Release clutch pedal.
- Reverse-With car at a standstill, depress clutch pedal, raise lever, and push upward to engage reverse.

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Two identical keys are furnished with the car which operate the front doors, the ignition switch, the glove compartment and trunk locks. As a protection against unauthorized persons securing keys, the key number does not appear either on the key or the face of the locks, but on a small metal insert fastened in the key. Mark this key number on your Certificate of Title or Bill of Sale as soon as you take delivery of the car, and have your dealer knock the number insert out of the keys.

To lock the doors from inside, push down the locking button located on the bottom of the window opening of each door. To lock the car from outside, either of two ways may be used.



 With the door open push down the inside locking button and push the outside handle push button in while closing the door.

With the door closed, insert key in the lock of the front door handle and give the key a quarter of a turn.

#### Sedan Rear Door Lock

A safety feature is incorporated in the rear door locks of all fourdoor sedans for the convenience of owners who have small children. This door lock incorporates a means of shifting the remote control link lever to provide free-wheeling on the inside or remote control door handle at the option of the owner. With the remote control link lever set in the free-wheeling position the rear doors cannot be opened from inside unless the locking button is "UP."

All four-door sedans have this lever set for positive action on these handles. To change to free-wheeling use a pointed tool through the clearance hole in the face of the door lock pillar, engage the tab in the remote control lever link and trip the lever to the "UP" position to engage the intermittent lever. NOTE: The tool can be made up from an ice pick.



General Information

Use of the Jack

- Set parking brake and block wheel opposite one to be removed.
  If rear wheel is to be removed, remove wheel shield on DeLuxe Models. Remove hub cap and loosen wheel nuts.
- Remove had cap and rooten which had.
  Place jack base on ground so that upright column is on the outside of the bumper face bar.
- Draw jack body up to allow bumper to rest in jack seat and position as shown.
- Move lever on side of jack housing to "UP" position, insert jack handle and raise jack until tire clears ground.
- 6. Remove wheel nuts and remove wheel.
- In replacing either front or rear wheels, tighten wheel nuts snugly, shift lever on jack housing to "DOWN" position and lower jack until wheel touches ground. Then make certain that all nuts are drawn up tight, replace hub cap and remove jack.
- 8. If rear wheel shield was removed, replace wheel shield.



#### Rear Wheel Shields

The rear wheel shields may be removed by reaching up under the shield to reach handle of lever, pushing it away from you to clear flange and then pulling straight down. To install this shield,



straight down. To install this snield, engage lug at lower rear corner in its bracket and, making sure that lever handle points straight down, push upper part of shield into place. Then move handle away from you and up, locking it behind lower flange of shield.

#### Jires

Tires used as standard equipment on all Passenger, Station Wagon and Sedan Delivery are 6.70x15–4 ply. Optional for use on Station Wagon and Sedan Delivery are 6.70x15–6 ply. Variations in pres-sure will make a difference in the riding qualities, mileage and wear characteristics obtained. It is recom-mended theorem the tic preservers in



mended, therefore, that air pressures in the tires be checked every two weeks preferably when tires are normally cold and that pressures be maintained as indicated in Data section on page 29.

Normal wear may be kept at a minimum by interchanging wheels and tires at regular intervals between 3,000 and 5,000 miles depending upon the severity of tire tread wear.

Incorrect front wheel alignment or wheels which are out of balance will cause rapid uneven tire wear. If this condition is evident, your car should be checked by a Chevrolet dealer who is qualified to check and make all necessary corrections.

Cleaning White Sidewall Jires

Use of a mild soap and water solution applied by brush is recom-mended to remove ordinary discoloration due to curb markings, grease, dirt, etc. Under no circumstances should gasoline, kerosene

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or any cleaning fluid containing a solvent derived from oil be used to clean white sidewall tires. Oil in any form is detrimental to rub-ber and a cleaner with an oil base will discolor or injure white sidewall tires

#### Anti-Freeze

When installing anti-freeze solutions, the quantity should be determined by the anti-freeze manufacturer's recommendation based on the cooling system capacity stated on page 29.

Chevrolet recommended anti-freeze compounds are those made from ethylene glycol base, denatured ethyl alcohol (ethanol) and methyl or wood alcohol (methanol) prepared by a reputable manufacturer and treated by them to reduce the rust-forming properties of water by the addition of an inhibitor in their product.

### Care of Chrome

Salt and calcium chloride compounds used to clean streets of snow and ice in winter, and applied to dirt and gravel roads to lay dust during the summer months, will damage chrome plating if allowed to remain on these parts any length of time. Salt air and corrosive atmosphere of some localities are injurious to chrome plating.

The chrome can be protected by frequent washing and as a further precaution, it is well to treat the plated surfaces with wax. The wax used for polishing cars is very satisfactory. To apply, first wash with water. Then dry with a chamois and apply wax with a clean soft cloth. Finish by polishing with another clean sloth clean cloth.

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For chrome plated surfaces already damaged by rust, clean with a cleaning compound which your dealer can supply and then apply a protective wax coating.



#### Chevrolet Radio

SWITCH AND VOLUME CON-TROL-The first portion of rotation in a clockwise direction of right knob turns on the radio with further rotation increasing volume.

MANUAL TUNING CONTROL-This control on left is for manual selection of stations and affords the utmost in tuning selection.

TONE CONTROL-The chrome-plated lever behind the volume con-To hole controls the full one range of your set. Rotating this lever will allow a full range from the "treble" position which reproduces speech clearly and distinctly to a gradual diminishing brilliance and accentuation of the low notes.

PUSH BUTTON TUNING-The five push buttons are for the automatic tuning of five pre-selected stations. The tuning operation is accomplished by merely pushing one of the buttons in as far as it will go. Setting up the push buttons is a simple procedure which can be done with one hand as follows:

- (a) Turn on the receiver for ten minutes or longer to allow the various circuits to stabilize. In sub-zero weather allow the receiver to warm up from thirty to forty-five minutes.
- (b) Select your five favorite stations in order of their frequency. It is suggested that they be arranged with the high frequency sta-tions on the lower push buttons, etc.
- (c) Pull the button slightly down and out approximately one-half
- (d) Turn the manual control knob until the desired station is tuned in. To secure an accurate set up turn the manual uning knob back and forth until the station is tuned in clearly and with a minimum of background noise.
- (e) Push button in firmly to the end of its travel.
- (f) Repeat the same procedure to set up the remaining four buttons. A station setting may be changed at any time by following the above procedure.

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### Automatic Heating Controls

One compact unit provides effective all-year control of temperature, volume, velocity, and distribution of outside air.

Volume, velocity, and distribution of our Moving this knob to the right increases the volume of outside air delivered to the defroster nozzles. Moving this knob to the right opens the out-side air intake duct to a waximum at LOW. Beyond this point a 2-speed blower may be actuated at MED and HI to force air into the car when traveling at low speeds. Moving this knob to the right raises the tem-perature of the air delivered to the car interior and the defroster nozzles.



NOTE: To keep out offensive odors and exhaust gases when traveling in congested traffic or when parked behind a car having its motor running, shut he outside air micke ducts by moving the "AIR" knob to the "off" position and pushing the left vent knob; if open, all the way in Exhaust gases contain carbon monoxide. See note on page 14.

#### Some Average Control Settings for Winter Operation







ENGINE – The crankcase of the engine, as delivered to you, is filled with a light body "breaking-in" oil. Use this oil during the first 500 miles. Check the oil level frequently and maintain the level between the "Full" and "Add Oil" lines on the oil level rod. If during the first 500-mile period it is necessary to add oil, use nothing heavier than 10-W Oil.

At the end of the first 500 miles drain the breakingin oil from the crankcase-when hot-and refill with the proper grade as indicated in the table below.

After the first oil change made at the completion of the first 500 miles the oil should be changed thereafter every 2,000 miles. Adverse driving conditions may necessitate more frequent changes and consideration should be given when driving in dust storms, cold or severe weather or on very dusty roads.

TEMPERATURE	GRADE OIL
'Not lower than 32° F.	SAE 20 or 20-W
As low as plus 10° F.	20-W
As low as minus 10° F.	10-W
Below minus 10° F.	10-W plus 10% kerosene

#### Every 1,000 Miles

CHASSIS LUBRICATION-(See Lubrication Chart on Page 26.) CRANKING MOTOR-A few drops of engine oil should be used on fulcrum shifting mechanism lever. Do not oil solenoid plunger.

GENERATOR-A few drops of engine oil at both ends of generator. TRANSMISSION AND REAR AXLE-Lubricant level should be checked and Hypoid lubricant such as SAE 90 "Multi-Purpose" lubri-

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cant added if required. Straight Mineral Oil Gear Lubricant must not be used in Hypoid Rear Axle but may be used in transmission.

NOTE: "Multi-Purpose" Gear Lubricants must be carefully compounded and of the latest non-corrosive type and of prover quality. The lubricant manufacturer must be responsible for the satisfactory performance of his product. His reputation is your best indication of quality.

STEERING GEAR-Filled with an all-season lubricant. Check level and fill to level of filler plug hole when necessary using steering gear lubricants. "Multi-Purpose" gear lubricant as recommended for rear axle and transmission may be used.

THROTTLE CONTROL LINKAGE-A few drops of engine oil. Do not oil carburetor linkage.

DISTRIBUTOR-Lubricant cup located on side of housing is filled with chassis lubricant. Turn cup down every 1000 miles.

BRAKE MASTER CYLINDER-Maintain level ½" to 1" below top of cylinder. Use Delco Super No. 9 hydraulic brake fluid as required.

HOOD LATCH MECHANISM-Light engine oil.

DOOR LOCK BOLTS AND STRIKER PLATES—Use G.M. door ease on all curved surfaces and light machine oil on all flat surfaces. DOOR DOVETAIL BUMPERS AND WEDGE PLATES—Apply G.M. door ease to shoes and surface of wedge plates.

LOCK CYLINDERS-Lubricate with powdered graphite. REAR COMPARTMENT LID LOCK MECHANISM – Lubricate

moving parts with cup grease. BATTERY-Fill to ¼" above plates with distilled water. *Do not* overfill.

RADIATOR-Maintain coolant level 1" below top of tank.

#### Every 2,000-3,000 Miles

ENGINE CRANKCASE-Drain and refill using lubricants as recommended in chart on page 22.

AIR CLEANER-The filter element should be washed every 2000 miles or oftener as required with kerosene and reoiled using engine

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oil. If oil bath cleaner is used clean filter element and oil reservoir and refill reservoir with 1 pint SAE 50 engine oil or lighter grade in winter.

#### Every 3,000 Miles

SPARK PLUGS-Remove, clean and regap plugs to .035". TIRES-Rotate tires as indicated on page 18.

#### Every 5,000 Miles

DISTRIBUTOR-Remove distributor rotor and place a few drops of SAE 10 engine oil on felt wicking in top of cam. Apply a small amount of petroleum jelly on distributor cam surface by holding a clean cloth which has been soaked in jelly against it while cranking starter.

 $\label{eq:hydro-lectric} HYDRO-LECTRIC SYSTEM - CONVERTIBLE COUPE - Swing oil hole cover on upper end of power unit motor and lubricate bearing with a few drops of engine oil.$ 

CARBURETOR ACCELERATING PUMP SHAFT-Remove dust cover and saturate felt ring on pump lever shaft with light engine oil.

#### Every 10,000 Miles

FRONT WHEEL BEARINGS-Remove front wheel hub and drum and clean bearings. Repack bearings with high melting point grease. Do not pack hub between inner and outer bearing assemblies or the hub cap. Reinstall wheel, hub and drum and adjust.

FRONT WHEEL BEARINGS-ADJUST-Take up on spindle nut, using an 8" wrench, until wheel is somewhat hard to turn by hand while rotating wheel to seat all parts. Back off adjusting nut  $\frac{1}{12}$  turn to point where slot in nut and hole in spindle align and install cotter pin.

BRAKE AND CLUTCH PEDALS-These pedals are lubricated at factory and should require no further lubricant. If pedal operation becomes sticky remove plug and fill reservoir with chassis lubricant.

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STEERING COLUMN GEARSHIFT CONTROL—This mechanism is lubricated at factory and should require no further lubricant. If shifting effort becomes sticky, remove cap from gearshift control box and fill box with a soft smooth grease.

REAR AXLE AND TRANSMISSION—While seasonal changes of the lubricant are not required, it is recommended that the transmission and rear axle housings be drained, flushed and refilled at least twice a year or every 6,000 to 10,000 miles. Refill using a Hypoid lubricant such as SAE 90 "Multi-Purpose" gear lubricant. Straight mineral oil gear lubricant must not be used in Hypoid Rear Axle but may be used in the transmission.

Use a light flushing oil to flush out housings. Do not use water, steam, kerosene, gasoline, alcohol, etc.

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Lower Control Arm-Front (1 each side)	
Chassis Lubricant	1,000 miles
Lower Control Arm-Rear (2 each side)	
Chassis Lubricant	1,000 miles
Upper Control Arm–Front (1 each side) Chassis Lubricant	1,000 miles
Upper Control Arm-Rear (2 each side) Chassis Lubricant	1,000 miles
Front Wheel Bearings-High Melting Point Front Wheel Bearing Lubricant	10,000 miles
Kingpin (2 each side) Chassis Lubricant	1,000 miles
Tie Rod (2 each side) Chassis Lubricant	1,000 miles
Steering Gear-Add Gear Lubricant When Necessary	1,000 miles
Air Cleaner (See Page 23)	2,000 miles
Steering Column Gearshift Control (See Page	25)10,000 miles
Transmission (See Page 22 and 25)	
. Rear Axle (See Page 22 and 25)	
. Generator (2 Oil Cups)	
Light Engine Oil	1,000 miles
Distributor (1 cup)	1.000 miles
Chassis Lubricant	10,000 miles
Clutch and Brake Pedal Shaft (See Page 24).	
Light Engine Oil	1,000 miles
. Carburetor Accelerator Pump Shaft	5.000 miles
Solenoid Linkage (See Page 22)	1.000 miles
Steering Connecting Rod (1 each and)	1,000 111103
Chassis Lubricant	1,000 miles
. Steering Idler and Third Arm (2 places)	1.000



### Maintenance Schedule

The table below indicates some of the things which should be done at regular mileage intervals.

Mileage	Lubri- cate Chassis	Change Oil	Clean Air Cleaner	Clean Spark Plugs	Cross Change Tires	Check Brake Adjust- ment	Tune Engine	Complete Inspec- tion by Dealer	Pack Front Wheel Bearings
500		*						8	
1000	*					-			1.00
2000	*	*	*						
3000	*			*	*				
4000	*	*	*	3				1.000	
5000	*					*	*	*	
6000	*	*	*	*	*				
7000	*								
8000	*	*	*						
9000	*			*	*				
10000	*	*	*			*	*	*	*
11000	*	1	13,0				1		
12000	*	*	*	*	*				
13000	*								all Provide Pr
14000	*	*	*				1		
15000	*			*	*	*	*	*	

The following operations should be done as indicated:

Period	Check Battery	Check Air In Tires	Change Rear Axle Lub.	Change Trans. Lub.	Add Anti- Freeze	Flush Cool- ing System
Weekly	*	*				
Spring			*	*		*
Fall	Superior Tax	and the of	*	*	*	*

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### Data

CAR SERIAL NUMBER Stamped on plate attached to body left windshield pillar.

NGINE NUMBER

20110	LIVE A COMA	O ADA C												
	Stamped	on	boss	on	right	center	side	of	engine	block	to	the	rear	
	of ignitio	n di	istrib	uto	r.				and the					

24 lbs. 24 lbs. 30 lbs. 16 gals. 16 qts. 1½ pts. 5 qts. Power Number Watts Sealed Beam 63 3 1154 63 1129
24 lbs. 30 lbs. 16 gals. 16 ds. 14 pts. 3½ pts. 5 qts. Power Number Watts Sealed Beam 63 3 1154 63 1129
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Intake (	Hot)		
Exhaust	(Hot)		
Spark Plug	Gap		
Distributor	Point Gap		
Clutch Ped	lal Clearance		
Fuses	CAPACITY	NUMBER	LOCATION
Radio	14 AMP		End of A-lead at set
Heater		147685	On back of switch
Defroster			On back of switch
Headlamps	)		
Tail Lamps			
Parking Lamps			nermai Circuit Breaker
Instrument Ligh	to		

THERMAL CIRCUIT BREAKER-Eliminates necessity of fuses in headlamp, tail lamp, parking lamp and instrument lamp circuits. When the current load is too heavy, due to a short circuit, the circuit breaker opens and closes rapidly thus reducing current sufficiently to protect the wiring from damage. This action continues until the cause is eliminated.

#### Battery

CAUTION: Electric storage batteries give off highly inflammable hydrogen gas when charging and continue to do so for some time after receiving a steady charge.

Under no condition should an electric spark or open flame be allowed near the battery, particularly in the vicinity of the vent caps. Before doing any work around a battery a metallic contact between the car bumper and the ground should be made to remove the possibility of a static charge causing a spark in the vicinity of the battery. A long metal bar or a metal chain of sufficient length will accomplish this.

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#### Manufacturer's Warranty

It is expressly agreed that there are no warranties, expressed or implied, made by either the Dealer or the Manufacturer on Chevrolet motor vehicles, chassis or parts furnished hereunder, except the Manufacturer's warranty against defective materials or workmanship as follows:

1008: "The Manufacturer warrants each new motor vehicle, including all equipment or accessories (except tires) supplied by the Manufacturer, equipment or accessories (except tires) supplied by the Manufacturer, including and the manufacturer of the supplied by the Manufacturer, including and the manufacturer of the supplied by the Manufacturer, including and the supplied of the supplied by the supplied and workmaniship under normal use and service, its obligation under phis warranty being limited to making good at its factory any part or parts thereof which shall, within ninety (90) days after delivery of such vehicle to the original purchaser or before such vehicle has been driven 4,000 miles, which ever event shall first occur, be returned to it with transportation charges prepaid and which its examination shall disclose to its satisfaction to have been thus defective; this warranty being expressive in lieu of all other warranties, expressed or implied, and all other obligations or liabilities on its part, and it neither assumes nor authorizes any other person to assume for it any other liability in connection with the sale of its vehicles.

"This warranty shall not apply to any vehicle which shall have been repaired or altered outside of an authorized Chevrolet Service Station in any way so as in the judgment of the Manufacturer to affect its stability and reliability, nor which has been subject to misuse, negligence or accident."

The Manufacturer has reserved the right to make changes in design or add any improvements on motor vehicles and chassis at any time without incurring any obligation to install same on motor vehicles and chassis previously purchased.

#### Battery Warranty

To receive the full benefit of the warranty as given by the manufacturer of the battery, register it with your nearest Delco Battery service station. Your Chevrolet dealer will be glad to handle this registration for you.

#### Jire Warranty

The tires that came with your car are guaranteed by the tire manufacturer, or his agent, according to the standard Tire Manufacturers Warranty.

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## Revision May 20, 2025 rev U 1949 Chevrolet "Advance Design" Pickup Custom (\*)

The Advance-Design is a light and medium duty truck series by Chevrolet, their first major redesign after WWII. Its GMC counterpart was the GMC New Design. It was billed as a larger, stronger, and sleeker design in comparison to the earlier AK Series. First available on Saturday, June 28, 1947, these trucks were sold with various minor changes over the years until March 25, 1955, when the Task Force Series trucks replaced the Advance-Design model.

The same basic design family was used for all of its trucks including the Suburban, panel trucks, canopy express, and cab overs. The cab overs used the same basic cab configuration and similar grille but used a shorter and taller hood and different fenders. The unique cab over fenders and hood required a custom cowl area which makes



the cab over engine cabs and normal truck cabs incompatible with one another while all truck cabs of all weights interchange.

From 1947 until 1955, Chevrolet trucks were number one in sales in the United States, with rebranded versions sold at GMC locations.

While General Motors used this front-end sheet metal, and to a slightly lesser extent the cab, on all of its trucks except for the cab overs, there are three main sizes of this truck: the half-, three-quarter-, and full-ton capacities in short and long wheelbase.

With the truck proving to be very popular in the United States, the same "Advance-Design" styling was used on other trucks made overseas by General Motors' divisions such as Opel and Vauxhall. Both the redesigned 1952 Opel Blitz and 1953 Bedford A-Type were stylistically heavily based on the Advance Design truck.

Early 1949 - Gasoline tank now mounted upright behind seat in cab; filler neck aft of passenger door handle. New serial number codes: GP 1/2 ton, GR 3/4 ton, & GS 1 ton.

Late 1949 - Hood side emblems no longer read "Thriftmaster" or "Loadmaster", but are now numbers that designate cargo capacity: 3100 on 1/2 ton, 3600 on 3/4 ton, 3800 on 1 ton. Serial number codes remain the same as on early 1949.

During the retro-craze of the 2000s, the style of the Advance Design was used for the Chevrolet SSR roadster pickup and later for the Chevrolet HHR crossover SUV, the latter of which lasted in production until 2012.

This particular example has been significantly modified and customized. The original 216 cubic-inch inline 6-cylinder engine rated for 92 horsepower has been replaced with an LS1 V-8 Corvette engine that produces approximately 350 horsepower.

This custom truck also has Corvette rear suspension and wheels, four-wheel disc brakes, a Ford Ranger truck bed, and a custom interior that includes Corvette seats, a tilt steering column, and after-market air conditioning.

Specs...

- 347 cubic-inch LS1 V-8 engine
- Approximately 350 horsepower
- 3-speed automatic transmission
- 116-inch wheelbase
- Original cost of \$1,253

## Revision May 20, 2025 rev U 1955 Chevrolet 210 2nd Gen 2-Door Sedan (\*)

The Chevrolet 210 or Two-Ten is a midrange car from Chevrolet that was marketed from 1953 until 1957. It took its name by shortening the production series number 2100 by one digit in order to capitalize on the 1950s trend toward numerical auto names. The numerical designation "210" was also sporadically used in company literature. It replaced the Styleline DeLuxe model available in previous years. The 210 was discontinued after the 1957 model year to be replaced by the Biscayne.

The Two-Ten series, introduced for the 1953 model year, replaced the Styleline DeLuxe series. It was actually the best-selling Chevrolet model during 1953 and 54, offering a balance of style and luxury appointments unavailable in the base 150 series, but was less costly than the





glitzy Bel Air. Two-Tens offered the widest choice of body styles for 1953, including a convertible, Sport Coupe hardtop, two- and four-door sedans, and four-door station wagons.

As the American public began to prefer posh to economy, the Bel Air began to outsell the lesser series, including both 150 and 210 models. As a partial answer to this, Chevrolet re-introduced the Two-Ten Sport Coupe hardtop in the middle of the 1955 model year, and also added a four-door Two-Ten hardtop Sport Sedan for 1956. Neither achieved the sales of their Bel Air counterparts, however, since they were only about \$100.00 cheaper than the Bel Airs, which provided more luxury and premium exterior trim.

Unlike the 150 series, Two-Tens were always available with the same luxury options as the Bel Air, including the Powerglide automatic transmission, power window lifts and seat adjuster. The Two-Ten Townsman was the top station wagon model offered in 1953, but the Townsman was moved up to the Bel Air series for 1954, only to return to the Two-Ten for 1955. The lower-priced Handyman station wagon, a four-door model in 1953–54, became a two-door for 1955–57. Both were joined by a ninepassenger Beauville four-door wagon in 1956–57.

The 1955 model year marks the introduction of a new chassis and the debut of the small block V8. The center door frame was beefed up for more safety. Brakes were 11-inch (280 mm) drums. The Two-Ten buyer was free to choose any powertrain option available. The ammeter and oil pressure gauges were changed to warning lights.

This was the second Chevrolet to have a V8 engine installed. The first one was the Series D introduced in 1917 - before Chevrolet joined General Motors - and built for two years.

Today, the Bel Air series of Chevrolets from 1953 to 1957 are far and away the most desirable models for collectors. However, Two-Ten models do have appeal, especially the 1953 convertible (very rare), the Del Ray Club Coupe with its upgraded vinyl interior, and the Sport Coupe hardtops of 1953 and 1955-57. Other models are less valuable, but again, can be purchased for less money than Bel Airs, for Chevrolet collectors on a budget. Unlike the One-Fifty series, Two-Tens do sport a fair amount of chrome trim and Deluxe interior appointments, making them attractive and comfortable.

Specs...

- 350 cubic-inch V-8 engine (modified from original 265 cubic-inch)
- 3-speed transmission
- Del Ray checkered interior
- 28,000 original miles
# Revision May 20, 2025 rev U 1955 Chevrolet 150 2-Door 2nd Gen. Wagon Custom (\*)

The Chevrolet One-Fifty (or 150) was the economy/fleet model of the Chevrolet car from 1953 until 1957. It took its name by shortening the production series number (1500) by one digit in order to capitalize on the numerical auto name trend of the 1950s. The numerical designation "150" was also sporadically used in company literature. It replaced the Styleline Special model available in previous years. This model was discontinued following the 1957 model year and replaced by the Delray.

The One-Fifty was mainly conceived as a fleet model and little effort was spent marketing it to the average car buyer of the day, although sales were not limited to fleets. It was most popular with police, state governments, small businesses, economy-minded consumers and hot





rodders. Chevrolet sold substantially fewer One-Fifties than Two-Tens or the Chevrolet Bel Air in every year of its life.

True to Chevrolet's vision, the 150 was no-frills basic transportation. It had limited options, stark trim, solid colors, plain heavy-duty upholstery and rubberized flooring. Small things like ashtrays, cigarette lighters and even mirrors were extra cost options. Compared to the mid-level Two-Ten or premium Bel Air models, the One-Fifty was stark and bland.

The Chevrolet Sedan Delivery was part of the One-Fifty line, and was also designated the 1508 in the truck line.

Body style choices were also limited to sedans, Handyman wagons (fourdoor in 1953–1954, two-door in 1955–1957) and (until 1955) the club coupe. The only body styles specific to the One-Fifty were decidedly fleet oriented — the sedan delivery (a 2-door wagon without rear windows and the rear seat removed) and the business sedan — a 2-door sedan with immobile rear windows and back seat removed. Powertrain choices were limited to manual transmissions and low output engines until 1954. In 1957, a full race-ready version was also available, commonly known as the "Black Widow" for its black-and-white paint color. It was equipped with 4-wheel heavy-duty brakes, 6-lug wheels and dual shock absorbers.

The 1955 model year marked the introduction of a new chassis, all new streamlined single bow bodywork, and the debut of Chevrolet's Small Block V8. The One-Fifty buyer was free to choose any powertrain option available. The business sedan was renamed the utility sedan this year. Unlike the 210 and the Bel Air, the 150 did not have any of the stainless-steel trim.

Specs...

- 350 cubic-inch V-8 engine (original engine was either 234ci or 265ci)
- 4-speed automatic transmission with overdrive
- Corvette grill
- Custom interior

# **1957 Chevrolet Bel Air (2<sup>nd</sup> Gen.)** Rockabilly Hall of Fame Member Garlin Hackney owned this beauty.

the 1957



Garlin Hackney and Tracy-Leigh Pomeroy would like to share this '57 Chevy for all to see and enjoy. It is our pleasure to fulfill that wish.

It was in his possession for over twenty years. This one was the 3rd '57

Bel Air that Mr. Hackney has owned through the years, being his favorite car of all time. The first one he saw in 1957 was when the local mail carrier bought one to deliver mail in rural eastern Kentucky. Garlin felt that



Mr. Martin's wonderful collections.

Few facts on the 57 Bel Air: assembled at The GM Lakewood Plant in Atlanta, Georgia around Memorial Day 1957, 283ci Power Pak engine and two speed Power glide transmission.



Chevrolet epitomizes the 50's decade, with jet age style of the fins, and the music of the day, as a musician from his early teens, Garlin found his way of fusing 1957 and music by naming his group "Hack and The 57s". This '57 that you are seeing has been the mascot of quite a few performances over the years at Rockabilly Festivals and car shows and featured on Arizona Highways salute to Route 66. Mr. Hackney is honored to have his '57 on display at the prestigious Martin Auto Museum, for all visitors of this wonderful place, to view and have hands on experience with this 1957, and the rest of From the start we decided to perform the restoration in house. Our team of Jeff Gibson & Bobby Cook caringly restored her to the specs on the VIN, Trim Code, Body Code, and Paint Code.

Paint by Vic's Custom Auto Body & Paint, Victor Garcia, Phoenix Arizona



# Rick DeBruhl Commentary - " Why is the 1957 Chevy an icon of the 50s?"



#### Available options in 1957: BODY STYLES

The 1957 Bel Air was available in multiple configurations:

- 2-Door Hardtop (Sport Coupe)
- 4-Door Hardtop (Sport Sedan)
- 2-Door Convertible
- 2-Door Sedan
- 4-Door Sedan
- Station Wagon (Nomad)
- Station Wagon (4-door Townsman)

# DIMENSIONS

- Wheelbase: 115 inches
- Length: 200 inches (approximately)
- Width: 73 inches
- Height: 57 inches (varied slightly by body style)
- **Curb Weight**: ~3,200–3,500 lbs (depending on body style)

# POWERTRAINS

The 1957 Bel Air offered a variety of engine options to suit different performance needs: **Engines** 

# Blue Flame" 235 CID Inline-6

- Horsepower: 140 HP
- Carburetor: Single-barrel Rochester carburetor
- 265 CID V8 ("Turbo-Fire")
  - **Horsepower**: 162 HP (2-barrel carburetor)
- 283 CID V8 ("Super Turbo-Fire")
  - Horsepower Options:
  - 185 HP (2-barrel carburetor)
  - 220 HP (4-barrel carburetor)
  - 245 HP (dual 4-barrel carburetors)

- 270 HP (dual 4-barrel carburetors with Duntov camshaft)
- 283 HP (with Rochester mechanical fuel injection, "Ramjet" option)

### **Transmission Options**

- 3-Speed Manual (Column-Shift)
- 3-Speed Manual with Overdrive
- 2-Speed Powerglide Automatic

• **Turboglide Automatic** (new for 1957, a continuously variable ratio transmission)

## **CHASSIS & SUSPENSION**

- Front Suspension: Independent, coil springs
- Rear Suspension: Semi-elliptic leaf springs
- Brakes: 4-wheel drum brakes
- **Steering**: Recirculating ball

## **INTERIOR FEATURES**

- Bench seats with vinyl or cloth upholstery in a variety of patterns and colors.
- Optional deluxe appointments included:
- Two-tone interiors
- Carpeted floors
- Padded dashboard
- Electric clock
- Signal-seeking AM radio

## **STANDARD FEATURES:**

- Chrome accents throughout (bumpers, grille, window surrounds)
- Full wheel covers
- Electric windshield wipers
- Dual exhausts for most V8 models

## **OPTIONAL FEATURES:**

#### **Exterior Options**

- Two-tone paint schemes with a wide variety of color combinations.
- Chrome bumper guards and trim packages.
- Fender skirts.
- Continental spare tire kit.

#### **Interior Options**

- Power windows.
- Power seat adjustment.
- Deluxe heater and defroster.

## **Mechanical Options**

- Power steering.
- Power brakes.
- Electric windshield washers.
- Dual exhausts (standard on higher-output V8s).

## **Performance Options**

- Rochester mechanical fuel injection ("Ramjet" system).
- Heavy-duty suspension package.

# 1961 Chevrolet Corvette C1 Convertible (\*)

# The Chevrolet Corvette (C1) is the first generation of the Corvette sports car produced

the Corvette sports car produced by Chevrolet. It was introduced late in the 1953 model year and produced through 1962. This generation is commonly referred to as the "solidaxle" generation, as the independent rear suspension did not appear until the 1963 Sting Ray.

The Corvette was rushed into production for its debut model year to capitalize on the enthusiastic public reaction to the concept vehicle, but expectations for the new model were largely unfulfilled. Reviews were mixed and sales fell far short of expectations through the car's early years. The program was nearly canceled, but Chevrolet decided to make necessary improvements.

The most expensive Corvette (C1) to sell in history was sold by Barrett-





Jackson in the United States in March 2021 for \$825,000 (~\$915,195 in 2023).

Few cars have the timeless appeal of the first-generation Corvette. In 1961, there were 10,939 Corvettes built and all were convertibles. Almost 90 percent were built with a manual transmission.

While the exterior received subtle improvements to its overall appearance, the interior of the 1961 Corvette went virtually unchanged from its predecessors.

Improvements in fiberglass manufacturing and refined assembly processes improved the car's fit and finish, such that the 1961 Corvette was recognized by critics and enthusiasts as the best built Corvette at the time.

Twin taillights appeared on the 1961, a treatment that continues to this day. Engine displacement remained at 283 cubic inches, but power output increased for the two fuel-injected engines to 275 and 315 hp (205 and 235 kW). Output ratings for the dual-four-barrel engines did not change (245 and 270 hp (183 and 201 kW)), but this was the last year of their availability. This was the last year for contrasting paint colors in cove areas, and the last two-tone Corvette of any type until 1978. Also debuting in 1961 was a new boat-tail that was carried through to the C2. Infrequently ordered options included RPO 353 275 hp (205 kW) engine (118), RPO 687 heavy-duty brakes and steering (233), RPO 276 15×5.5-inch steel road wheels (357), and RPO 473 power convertible top (442).

Specs...

- 283 cubic inch engine
- 230 horsepower
- 4-speed manual transmission
- 3:70 Posi-traction rear axle
- Spinner wheel covers
- Base price of \$3,934

# 1963 Chevrolet Bel Air 5th Gen. (\*)

The Chevrolet Bel Air is a full-size car produced by Chevrolet for the 1950-1981 model years. Initially, only the two-door hardtops in the Chevrolet model range were designated with the Bel Air name from 1950 to 1952. With the 1953 model year, the Bel Air name was changed from a designation for a unique body shape to a premium level of trim applied across a number of body styles. The Bel Air continued with various other trim level designations, and it had gone from a mid-level trim car to a budget fleet sedan when U.S. production ceased in 1975. Production continued in Canada, for its home market only, through the 1981 model year

The Bel Air was given a facelift in 1963. Its overall length increased to 210.4 in (5,340 mm). Replacing the older 235 cubic-inch six-cylinder engine as standard equipment was a new 230 cubic-inch six-cylinder of more modern design with a 140-horsepower rating that was based on the 194 cubic-inch six introduced on the compact Chevy II Nova the previous year. The base V8 remained the 283 CID, which was upgraded to produce 195 hp (145 kW). The 409 CID V8 was now offered in 340, 400 and 425 hp (317 kW) versions, while the small block 327 V8 continued







with options of 250 and 300 horsepower. The Bel Air continued to be Chevrolet's middle range, but it now consisted of only two car models- the 2-door sedan and the 4-door sedan. 6 and 9-passenger Bel Air station wagons were again offered. "409" was inspired by Gary Usher's obsession with hot rods. Its title refers to an automobile fitted with Chevrolet's 409-cubic-inch-displacement "big block" V-8 engine. The song's narrator concludes with the description "My four speed, dual-quad, positraction four-oh-nine." This version of the engine – at 409 hp, achieving 1 hp per cubic inch – featured twin "D" series Carter AFB (Aluminum Four Barrel) carburetors ("dual-quads"). It was offered in new vehicles (Impala SS "Super Sport"; Bel Air; Biscayne) and as replacement units in the 1962 model year.

Specs...

- 409 cubic inch engine
- 425 horsepower
- Dual 4-barrel carburetors
- 4-speed transmission
- Positraction rear axle
- Factory original stock car

# Revision May 20, 2025 rev U 1964 Chevrolet Impala SS Convertible (\*)

The Chevrolet Impala is a fullsized car built by Chevrolet for model years 1958 to 1985, 1994 to 1996, and 2000 to 2022. The Impala was Chevrolet's popular flagship passenger car and was among the better-selling Americanmade automobiles.

For 1964, the Impala was restyled to a more rounded, softer look. The signature taillight assembly had an "upside-down U" shaped



aluminum trim strip above the taillights, but the individual lights were surrounded by a body-colored panel.

In a December 17, 1960, press

release, Chevrolet introduced the Impala SS (Super Sport) option to the market. The SS badge was to become Chevrolet's signature of performance on many models, though it often has been an appearance package only. The Impala's factory SS package in 1961 was truly a performance package when so equipped from the factory with both the trim and "mandatory" suspension and engine





upgrades, beginning with the 348 cu in (5.7 L) V8 engines available with 305 hp (227 kW; 309 PS), 340 hp (254 kW; 345 PS), and 350 hp (261 kW; 355 PS) or the new 409 cu in (6.7 L) V8, which in 1961 was rated at 360 hp

(268 kW; 365 PS). Unlike all other years, the 1961 Super Sport package was available on any Impala, including sedans and station wagons (the sales brochure shows a 4-door hardtop Sport Sedan with the SS package). The package also included upgraded tires on station wagon wheels, springs, shocks and special sintered metallic brake linings. Only 142 1961 Impala Super Sports came from the factory with the 409. In addition to the factoryinstalled SS package, Chevrolet dealers could add SS trim to any standard Impala without the "mandatory" performance upgrades, and a number of 1961s were so equipped.

Starting in 1962, the Impala SS was an appearance package limited to hardtop coupe and convertible coupe models, available with all engines in the Impala series. This car was customized and features a non-standard engine.

The Super Sport was known as Regular Production Option (RPO) Z03, from 1962 to 1963, and again in 1968. From 1964 through 1967, the Super Sport was a separate model, with its own VIN prefix (for example in 1965–67 cars, 164 was the prefix for a regular Impala with a V8 engine, 166 or 168 were used in 1966–68 for a V8-equipped Impala SS). Super Sports from 1962 to 1964 came with engine-turned aluminum trim, which was replaced by a "blackout" trim strip in 1965 which ran under the taillights.

The 1964 model year is a staple of lowrider culture, and it is commonly mentioned in West Coast hip hop lyrics.

The Specs...

- 327 cubic-inch Turbo-Fire V-8 engine (not original)
- Triple carburetors
- 300 horsepower
- 4-speed manual transmission
- Hurst shifter
- 119-inch wheelbase



Lou Costabile My Car Story - Impala

# Revision May 20, 2025 rev U 1966 Chevrolet Corvette C2 Sting Ray Convertible (\*)

The Chevrolet Corvette (C2) is the second-generation Corvette sports car, produced by the Chevrolet division of General Motors (GM) for the 1963 through 1967 model years.

The 1963 Sting Ray production car's lineage can be traced to two separate GM projects: the Q-Corvette, and Bill Mitchell's racing Sting Ray. The Q-Corvette exercise of 1957 envisioned a smaller, more advanced Corvette as a coupe-only model, boasting a rear transaxle, independent rear suspension, and four-wheel disc brakes, with the rear brakes mounted inboard. Exterior styling was purposeful, with peaked fenders, a long nose, and a short, bobbed tail.

For the 1966 Corvette, the big-block V8 came in two forms: 390 hp (290 kW) on 10.25:1 compression, and 425 bhp





via 11:1 compression, larger intake valves, a bigger Holley four-barrel carburetor on an aluminum manifold, mechanical lifters, and four- instead of two-hole main bearing caps. Though it had no more horsepower than the previous high-compression 396, the 427-cubic-inch (6,993 cc), 425 hp (317 kW) V8 packed a lot more torque – 460 lb·ft (624 N·m) vs. 415 lb·ft (563 N·m). In the 1960s engine outputs were at times deliberately understated. This happened for two reasons; to placate nervous insurance companies, and to allow the cars to qualify for lower NHRA brackets based on horsepower and weight. Estimates of up to 450 hp (336 kW) for the 427 have been suggested as being closer to the truth. Conversely, power ratings in the sixties were done in SAE Gross Horsepower, which is measured on an engine without accessories or air filter or restrictive stock exhaust manifold, invariably giving a significantly higher rating than the engine actually produces when installed in the automobile.<sup>[28]</sup> SAE Net Horsepower is measured with all accessories, air filters and factory exhaust system in place; this is the standard that all US automobile engines have been rated at

since 1972. With big-block V8s being the order of the day, there was less demand for the 327, so small-block offerings were cut from five to two for 1966, and only the basic 300- and 350-bhp versions were retained. Both required premium fuel on compression ratios well over 10.0:1, and they didn't have the rocket-like thrust of the 427s, but their performance was impressive all the same. As before, both could be teamed with the Powerglide automatic, the standard three-speed manual, or either fourspeed option.

The 1966 model's frontal appearance was mildly altered with an eggcrate grille insert to replace the previous horizontal bars, and the coupe lost its roof-mounted extractor vents, which had proven inefficient. Corvettes also received an emblem in the corner of the hood for 1966. Head rests were a new option, one of the rarest options was the Red/Red Automatic option with power windows and air conditioning from factory which records show production numbered only 7 convertibles and 33 coupes. This relative lack of change reflected plans to bring out an all-new Corvette for 1967. It certainly did not reflect a fall-off in the car's popularity, however. In fact, 1966 would prove another record-busting year, with volume rising to 27,720 units, up some 4,200 over 1965s sales.

Specs...

- 327 cubic inch engine
- 300 horsepower
- 4-speed transmission
- Posi-traction axle
- 4-wheel independent suspension
- Base price of \$4,084

# 1966 Chevrolet Impala SS Convertible (\*)

The Chevrolet Impala (fourth generation) are fullsize automobiles produced by Chevrolet for the 1965 through 1970 model years. The 1965 Impala was all new, while the 1967 and 1969 models featured new bodies on the same redesigned perimeter frame introduced on the 1965 models. All Impalas of this generation received annual facelifts as well, distinguishing each model year. Throughout the early 1960s, Chevrolet's basic body designs became increasingly subtle, while the bright trim that was part of the Impala package added more than a touch of luxury to the look. The same pattern was followed in the interiors, where the best materials and equipment Chevrolet had to offer were displayed. In short, the Impala was on its way to becoming a kind of junior-grade Cadillac, which, for both the company and its customers, was just fine.



The 1966 Impala received only a minor facelift from its predecessor that included a revised horizontal bar grille up front and new triple rectangular taillights that replaced the triple round lights used on full-sized Chevrolets each year since 1958 with the exception of 1959, and chrome beltline strips were added in response to complaints about parking lot door dings on the clean-lined '65 models. The standard column-shift three-speed manual was now full synchronized, and a new 250-cubic-inch six-cylinder engine replaced the previous 230-cubic-inch six while the 195-horsepower 283cubic-inch Turbo Fire V-8 remained the base V-8 engine. Optional engines included a 275-horsepower 327-cubic-inch Turbo Fire V-8, the 396-cubicinch Turbo-Jet V-8 rated at 325 horsepower, or two new 427-cubic-inch

Turbo Jet V8s of 390 horsepower with 10.5 to 1 compression ratio and hydraulic lifters or the high-performance version rated at 425 horsepower with 11 to 1 compression ratio and solid lifters. A four-speed manual transmission was offered with all V8 engines. The two-speed Powerglide was exclusively offered with the six-cylinder engine as well as the 283 and 327-cubic-inch Turbo Fire V8s. The three-speed Turbo Hydramatic was limited to the 396 and 390-horsepower version of the 427 V-8. The Impala was the #2-selling convertible in the U.S. in 1966, with 38,000 sold.

Specs...

- 396 cubic-inch GM "big block" V-8 engine
- 325 horsepower
- 3-speed Turbo Hydra-Matic automatic transmission
- 119-inch wheelbase
- Custom wheels and tires

# Revision May 20, 2025 rev U 1967 Chevrolet Corvette C2 Sting Ray (\*)

The 1967 Corvette Sting Ray was the last Corvette of the second generation, and five years of refinements made it the best of the line. Although it was meant to be a redesign year, its intended successor the <u>C3</u> was found to have some undesirable aerodynamic traits. Duntov demanded more time in the wind tunnel to devise fixes before it went into production.

Changes were again modest: Five smaller front fender vents replaced the three larger ones, and flat-finish rockers sans ribbing conferred a lower, less chunky appearance. New was a single backup light, mounted above the license plate. The previous models' wheel covers gave way to slotted six-inch Rally wheels with chrome beauty rings and lug nuts concealed behind chrome caps. Interior alterations were modest and



included revised upholstery, and the handbrake moved from beneath the dash to between the seats. The convertible's optional hardtop was offered with a black vinyl cover, which was a <u>fad</u> among all cars at the time.

The 427 was available with a 1282 ft<sup>3</sup>/min (605 L/s) Rochester 3X2barrel carburetors arrangement, which the factory called Tri-Power producing 435 bhp (441 PS; 324 kW) at 5800 rpm and 460 lb·ft (624 N·m) at 4,000 rpm of torque. The ultimate Corvette engine for 1967 was coded L88, even wilder than the L89, and was as close to a pure racing engine as Chevy had ever offered in regular production. Besides the lightweight heads and bigger ports, it came with an even hotter camshaft, stratospheric 12.5:1 compression, an aluminum radiator, small-diameter flywheel, and a single huge Holley four-barrel carburetor. Although the factory advertised L88 rating was 430 bhp at 4,600 rpm, the true rating was said to be about 560 bhp at 6,400 rpm. The very high compression ratio required 103-

octane racing fuel, which was available only at select service stations. Clearly this was not an engine for the casual motorist. When the L88 was ordered, Chevy made several individual options mandatory,

including Positraction, the transistorized ignition, heavy-duty suspension, and power brakes, as well as RPO C48, which deleted the standard heater and defroster to cut down on weight and discourage the car's use on the street. As costly as it was powerful – at an additional \$1,500 over the base \$4,240.75 price – the L88 engine and required options were sold to a mere 20 buyers that year. With potential buyers anticipating the car's overdue redesign, sales for the Sting Ray's final year totaled 22,940, down over 5,000 units from 1966 results. Meanwhile, Chevrolet readied its thirdgeneration Corvette for the 1968 model year.

The base price of the 1967 Corvette was approximately \$6,000. Today, this model is valued at approximately \$75,000.

Specs...

- 327 cubic-inch V-8 engine (NOTE: This car has the hood from a 427 cubicinch Corvette)
- 350 horsepower
- 4-speed manual transmission
- 98-inch wheelbase

Rick DeBruhl Commentary - "Best Corvette Ever?"



# 1967 Chevrolet Corvette C2 Cutaway (\*)

It does not run or drive and likely never will. But, this 1965 Chevrolet Corvette can do something other Corvettes cannot do — it provides a unique look at all the primary components and systems that make a car work.

Chevrolet had built a cutaway Corvette to introduce the 1963 split-window coupe.

Similarly, this Corvette is painted in bright colors that identify the frame, suspension components, drivetrain, exhaust, and more.

This special cutaway car was built and donated to the museum by a couple of our Board members.

The Martin Auto Museum uses the cutaway vehicle for educational and entertainment purposes. Believe it or not, this vehicle could be returned to street use if desired.

The Specs...

- Marina Blue is one of the 10 colors available in 1967
- Original matching numbers car
- 300 horsepower
- Muncie 4-speed transmission
- Factory side exhaust



Lou Costabile My Car Story - Corvette Cutaway







# 1967 Chevrolet Corvette C2 Cutaway (Cont.)

Body – In & Out – Marine Blue	
Body Underside – Cream	
Interior – Blue	
Frame – Yellow	
Drive Train – Orange (Engine, Driveshaft, 1⁄2 Shafts, Differential, Transmission)	
Suspension – Light Blue (Springs, A Arm, Control Arm, Spindles)	
Steering – Dark Green	
Exhaust System – Red	
Fuel System – Turquoise (Fuel Pump, Carburetor, Fuel Lines, Fuel Tank)	
Brake System - Silver (Master Cylinder, Brake Lines, Calipers, Rotors)	
Cooling System – Light Green (Water Pump, Radiator, Thermostat Housing, Fan)	
Electrical System – Dark Blue (Distributor, Coil, Alternator, Starter, Battery, Regulator, Wiper Motor, Relays)	

# 1968 Chevrolet Chevelle SS396 Convertible Custom (\*) From the Alexander Orzechowski Collection

The Chevrolet Chevelle is a mid-sized automobile that was produced by Chevrolet in three generations for the 1964 through 1978 model years. Part of the General Motors (GM) A-body platform, the Chevelle was one of Chevrolet's most successful nameplates. Body styles included coupes, sedans, convertibles, and station wagons. The Chevelle Super Sport, or SS,



represented Chevrolet's entry into the muscle car market.

The Chevelle burst out of the gate for 1968 with modernized long-hood and short-deck, riding on a shorter 112-inch wheelbase. Of course, the Chevelle SS 396 was brimming with image, thanks to taut lines augmented by a black-accented grille, lower body, and tail panel; "SS 396" emblems inside and out; and a "twin-domed" hood.

For 1968, the Chevelle SS 396 started at \$2,899 for the sport coupe and \$3,102 for the convertible. This is one of only 57,595 Chevelle SS 396s produced for 1968 — of which only 2,286 were convertibles!

This car started life as a Chevelle SS 396 and still has the SS 396 badging on the front, back, and above the glove box. But this car was beautifully restored and customized by Alexander "Ski" Orzechowski. In addition to improving performance with a 572 cubic-inch crate engine, he also added custom upholstery, custom wheels and tires (extra wide rear tires), tilt steering wheel, modern gauges, air conditioning, and more.

Specs...

- 572 cubic-inch Chevy ZZ572 V-8 engine
- 621 horsepower
- 4-speed manual transmission
- 112-inch wheelbase

# **1968 Chevrolet Impala Custom (\*)** From the Alexander Orzechowski Collection

The Chevrolet Impala is a full-size car that was built by Chevrolet for model years 1958 to 1985, 1994 to 1996, and 2000 to 2020. The Impala was Chevrolet's popular flagship passenger car and was among the betterselling American-made automobiles in the United States.

The 1968 Impala was part of the fourth generation (1965-1970) of the popular model. The 1968 Impala received a facelift with a new front end and new rear bumper housed triple "horseshoe" shaped taillights. The L72 "427 Turbo-Jet" engine was once again returned to the option list, a solid-lifter -8 engine rated at 425 horsepower. It would continue to be available for both 1968 and 1969, replaced by the Turbo-Jet 454 for 1970.





**Total Impala production for 1968 was around** 

710,900, which was about 61,300 more than the previous year's total. The base price for the Impala in 1968 was \$2,846, which was about \$50 less expensive than the 1967 models.

This Impala was restored and customized by local car collector Alexander "Ski" Orzechowski, including a beautiful 2-tone silver paint job, shaved door handles, custom interior, and custom wheels, custom exhaust, and more. Improvements were also made under the hood with a Chevy big-block V-8 crate engine, Demon fuel system, and aluminum big port cylinder heads.

Specs...

- 454 cubic-inch V-8 engine
- Approximately 500 horsepower
- Automatic transmission
- 4-wheel Hydroboost disc brakes
- 12-bolt posi-traction rear differential
- 119-inch wheelbase

# 1968 Chevrolet Corvette C3 Convertible (\*)

The Chevrolet Corvette (C3) is the third generation of the Corvette sports car that was produced from 1967 until 1982 by Chevrolet. Engines and chassis components were mostly carried over from the previous generation. This marks the second time the Corvette would carry the Stingray name, though only for the 1969–76 model years. This time it was a single word as opposed to Sting Ray as



used for the 1963–67 C2 generation. The name would then be retired until 2014 when it returned with the release of the C7.

For 1968, both the Corvette body and interior were completely redesigned. As before, the car was available in either coupe or convertible models, but coupe was now a notchback fitted with a near-vertical removable rear window and removable roof panels (T-tops). A soft folding top was included with convertibles, while an auxiliary hardtop with a glass rear window was offered at additional cost. Included with coupes were hold down straps and a pair of vinyl bags to store the roof panels, and above the luggage area was a rear window stowage tray.

The enduring new body's concealed headlights moved into position via a vacuum operated system rather than electrically as on the previous generation, and the new hide-away windshield wipers utilized a problematic vacuum door. The door handles were flush with the top of the doors with a separate release button. Front fenders had functional engine cooling vents. Side vent windows were eliminated from all models, replaced with "Astro Ventilation", a fresh air circulation system. In the cabin, a large round speedometer and matching tachometer were positioned in front of the driver. Auxiliary gauges were clustered above the forward end of the console and included oil pressure, water temperature, ammeter, fuel gauge, and an analog clock. A fiber-optic system appeared on the console that monitored exterior lights and there was no glove box. The battery was relocated from the engine area to one of three compartments behind the seats to improve weight distribution. New options included a rear window defroster, anti-theft alarm system, bright metal wheel covers, and an AM-FM Stereo radio. All cars ordered with a radio, like the C2 cars, continued to be

fitted with chrome-plated ignition shielding covering the distributor to reduce interference.

The engine line-up and horsepower ratings were also carried over from the previous year as were the 3 and 4-speed manual transmissions. The new optional Turbo Hydramatic 3-speed automatic transmission (RPO M40) replaced the two-speed Powerglide. The L30, a 327 cu in (5.4 L) smallblock V8 engine rated at 300 hp (224 kW) and a 3-speed manual transmission were standard, but only a few hundred 3-speed manual equipped cars were sold. The 4-speed manual was available in M20 wideratio or M21 close-ratio transmission versions. The M22 "Rock Crusher", a heavy duty, close-ratio 4-speed gearbox, was also available for certain applications. The engine line-up included the L79, a 350 hp (261 kW) high performance version of the 327 cu in (5.4 L) small-block. Also available were several variants of the big-block 427 cu in (7.0 L) V8 engine, that taken together made up nearly half the cars. There was the L36, a 390 hp (291 kW) version with a Rochester 4-barrel carburetor; The L68, a 400 hp (298 kW) motor with a Holley triple 2-barrel carb set up (3 X 2 tri-power); The L71, generating 435 bhp (441 PS; 324 kW) at 5,800 rpm and 460 lb ft (624 N·m) at 4,000 rpm of torgue also with a tri-power; The L89 option was the L71 engine but with much lighter aluminum cylinder heads rather than the standard cast iron. Then there was the L88 engine that Chevrolet designed strictly for off-road use (racing), with a published rating of 430 hp (321 kW), but featured a high-capacity 4-barrel carb, aluminum heads, a unique air induction system, and an ultra-high compression ratio (12.5:1). Rare options were: L88 engine (80), J56 heavy-duty brakes (81), UA6 alarm system (388), L89 aluminum heads (624).

Only 18,630 Corvette Convertibles were built in 1968 at a base price of \$4,320. This car sold for approximately \$5,500 as equipped. This car has fewer than 60,000 original miles.

Specs...

- 427 cubic-inch V-8 engine
- 400 horsepower
- 4-speed manual transmission
- 98-inch wheelbase

# 1968 Chevrolet Camaro Z-28 (\*)

The first-generation Chevrolet Camaro is an American pony car introduced by Chevrolet in the fall of 1966 for the 1967 model year. It used a brand-new rearwheel-drive GM F-body platform and was available as a 2-door, 2+2 seat, hardtop, and convertible. The F-body was shared with the Pontiac Firebird for all generations. A 230 cu in Chevrolet straight-6 was standard, with several Chevy V8s available as options. The first-generation Camaro was built through the 1969 model year. Almost all of 1967–1969 Camaros were built in the two U.S. assembly plants: Norwood, Ohio, and Van Nuys, California. There were also five non-U.S. Camaro assembly plants in countries that required local assembly and content. These plants were located in the Philippines, Belgium, Switzerland, Venezuela, and Peru. The styling of the 1968 Camaro was very similar to the 1967 design. With the introduction of Astro Ventilation, a freshair-inlet system, the side vent windows were deleted. Side marker lights were added on the front and rear fenders as part





of safety requirements for all 1968 vehicles. It also had a more pointed front grille and divided rear taillights. The front running lights (on non-RS models) were also changed from circular to oval. The big-block SS models received chrome hood inserts that imitated velocity stacks and low-gloss black rear tail light panel.

The rear shock absorber mounting was staggered to resolve wheel hop issues, and higher-performance models received multi-leaf rear springs instead of single-leaf units. A 396 cu in (6.5 L) producing 350 hp (261 kW) at 5200 rpm and 415 lb·ft (563 N·m) of torque at 3400 rpm big block engine was added as an option for the SS, and the Z/28 appeared in Camaro brochures, and nearly 7,200 were sold. The 427 cu in (7.0 L) was not available as a Regular Production Option (RPO).

Chevrolet's Special Production Division had to convince Chevrolet's General Manager Pete Estes, but the General Manager only drove convertible vehicles, and the Z/28 was never produced as a convertible. A Central Office Production Order (COPO) was placed for the only Z/28 convertible Camaro built. The car was parked in the executive garage which Pete Estes had access to. Upon driving the vehicle, he promptly approved promoting the Z/28. A 1968 Z/28 competed in the 1971 British Saloon Car Championship at Crystal Palace in a three-way battle for the lead, a race which was later featured in the "Sporting Moments" episode of BBC's *100 Greatest* series.

Specs...

- 302 cubic-inch V-8 engine
- 290 horsepower
- 4-speed manual transmission
- 107-inch wheelbase

**1971 Chevrolet Chevelle 2nd Gen. Sports Coupe (Custom) (\*)** This is a body-off restoration and modification done by R-M-R Restoration.

The Chevelle was one of Chevrolet's most successful nameplates. The 1971 model year Chevelle retained the 1970 body, with a new front-end and rear-end styling, including large Power-Beam single-unit headlights, a reworked grille and bumper, and integral park/signal/marker lights. The grille was widened and featured a bright horizontal bar divided into two sections. At the center of this bar was a large Chevy bowtie for Malibus, or a large "SS" emblem for the SS models. The grille on the Super Sport was painted flat black, while the other models featured a silverfinish version. Base Chevelles had a thinner, plain bar with no ornamentation. A small "Chevelle" nameplate was located in the lower-left corner of the grille. New dual round taillights were integral with the back bumper. Chevrolet introduced the "Heavy Chevy"



(RPO YF3) model at midyear. It was primarily an appearance trim for the base Chevelle (13437) and was available with any V8 engine except the 454. Options were limited to those on the standard Chevelle sport coupe; vinyl floor, front bench seat, no center console shift, etc.

Chevrolet specifications for 1971 included both "gross" and "net" horsepower figures for all engines. The standard Chevelle SS engine was a two-barrel 350-cubic-inch V8 rated at 245 gross (165 net) horsepower. Optional was a four-barrel carbureted version of the 350 V8 rated at 275 gross (200 net with dual exhaust and 175 net with single exhaust) horsepower. The 402 cid big-block engine continued to be optional as the SS 396 but was only available in one horsepower rating, 300 gross (260 net)

horsepower, and was not available with cowl induction. The base LS5 454 V8 produced 365 gross and 285 net horsepower, but cowl induction was available, which produced more power because of the air induction and a louder exhaust system. The LS6 454 option, originally announced as a regular production option on the Chevelle SS for 1971, was dropped early in the model year. No official records indicate that any 1971 Chevelles were assembled with the LS6 engine.

For 1971, the SS option could be ordered with any optional V8, becoming more of a dress-up option than a performance option. The SS option was reduced to one RPO code, RPO Z15, and was only available for the Chevelle Malibu. This RPO code required any optional engine and transmission available in the Chevelle lineup. Since the 307 V8 was the standard base V8 in 1971, it could not be ordered with the SS option; one had to order the LS3 402 or the LS5 454, or one of the two 350 V8 engines (L65 or L48 - which reintroduced the small block to the SS option for the first time since the 1965 model year for USA market Chevelles).

GM mandated all divisions to design engines on regular, low-octane, lowerlead, or unleaded gasoline. To permit usage of the lower-octane fuels, all engines featured low compression ratios (9:1 and lower; well below the 10.25-11.25:1 range on high-performance engines of 1970 and earlier). This move reduced horsepower ratings on the big-block engines to 300 for the 402 cubic-inch V8, but the LS5 454 option had an "advertised" fivehorsepower increase to 365.

Both 350 V8 engines and the dual exhaust 402 cid V8 engine were available without the SS option; only the LS5 454 V8 required the SS option. A single-exhaust version of the 402 cid engine existed in 1970 with 330 gross hp and in 1972 with 210 net hp. In 1971, the single exhaust version of the 402 cid engine was rated 206 net hp, but it only appeared in the full-size Chevrolet brochure.

The original price for the 1971 Chevelle 2-door sports coupe was \$3, 150.

Specs...

- 454 cubic-inch engine
- 465 horsepower
- 5-speed transmission
- Custom paint

# 1975 Chevrolet Cosworth Vega (\*)

The Chevrolet Cosworth Vega is a subcompact four-passenger automobile produced by Chevrolet for the 1975 and 1976 model years. It is a limited-production version of the Chevrolet Vega, with higher performance. A total of 3,508 Cosworth Vegas were made and were priced nearly double that of a base Vega - and only \$900 below the 1975 Chevrolet Corvette.

The Cosworth Vega Twin-Cam engine is a 122 cu in (1,999 cc) inlinefour with die-cast aluminum alloy cylinder block and Type 356 aluminum alloy, 16-valve cylinder head with double overhead camshafts (DOHC) held in a removable cam-carrier that doubles as a guide for the valve lifters. Each camshaft has five bearings and is turned by individual cam gears on the front end. The camshafts, water pump and fan are driven by a fiberglass





cord-reinforced neoprene rubber belt, much like the Vega 140 cu in (2,294 cc) engine. The cylinder head has sintered iron valve seats and castiron valve seats. Race-bred forged aluminum pistons with heat-treated forged steel crankshaft and connecting rods enhance durability.<sup>[6]</sup>

The engine has a stainless-steel exhaust header and Bendix electronic fuel injection (EFI), with four injector valves, an electronic control unit (ECU), five independent sensors and two fuel pumps. Some 60 lb (27 kg) lighter than the SOHC Vega engine, it develops maximum power at 5,600 rpm and is redlined at 6,500 rpm, whereas the SOHC Vega engine peaks at 4,400 rpm and runs to 5,000 rpm. Final ratings are 110 hp (82 kW) at 5,600 rpm, 107 lb·ft (145 N·m) of torque at 4,800 rpm. 3,508 of the 5,000 engines were used. GM disassembled about 500 and scrapped the remainder.

All 2,061 1975 Cosworth Vegas were finished in black acrylic lacquer with gold "Cosworth Twin Cam" lettering on the front fenders and rear cove

panel and gold pinstriping on hood bulge, body sides, wheel openings, and rear cove. Black was not available on other Vegas until mid-1976. Most Cosworth Vegas have black interiors. All had a gold-colored engine-turned dash bezel, gold-plated dash plaque with build sequence number, 8,000 pm tachometer, and Cosworth Twin-Cam Vega steering wheel emblem.

Car and Driver magazine chose the Cosworth Vega as one of the "10 Best Collectible Cars" in its fourth annual Ten Best issue, saying: "We're talking about historical significance here."

Specs...

- 122 cubic-inch inline 4-cylinder engine
- 110 horsepower
- 4-speed manual transmission
- 97-inch wheelbase

Rick DeBruhl - Commentary - "This Vega Had F1 in its Blood"



# Revision May 20, 2025 rev U 1976 Chevrolet Monte Carlo Landau Custom (\*)

The Monte Carlo was marketed as the first personal luxury car of the Chevrolet brand. Introduced for the 1970 model year, the model line was produced across six generations through the 2007 model year, with a hiatus from 1989-1994.

For 1976 A new crosshatch grille, vertically mounted rectangular headlamps, and reshaped taillights identified the 1976



Monte Carlo (the reshaped taillight pattern was later incorporated into the fourth-generation Monte Carlo). Under the hood, a new 140 hp (104 kW) 305 cu in (5.0 L) 2-barrel V8 became the standard engine with the 145 hp (108 kW) 350 cu in (5.7 L) 2-barrel and 175 hp (130 kW) 400 cu in (6.6 L) V8s optional. California cars included a 165 hp (123 kW) 350 cu in (5.7 L) 4-barrel as the base engine (not available in 49 states), and could be equipped with the 400 cu in (6.6 L) 4-barrel V8. The big-block 454 cu in (7.4 L) V8 was discontinued. The Turbo Hydramatic transmission became standard equipment on all 1976 Monte Carlos.

Interior trims remained the same as in 1975, with both base and custom levels, but the instrument panel and steering wheel featured a new

rosewood trim that replaced the burled elm of previous years. A new option was a two-toned "Fashion Tone" paint combination. Monte Carlo sales hit a record total with 353,272 units this year. Of these, 191,370 were "S" Coupes and 161,902 Landau Coupes, which was an extra \$293.

But, if you know the classic body lines of the 1976 Monte Carlo, you will recognize that this car has been customized. This modified



Monte Carlo has both the front-end and rear-end from a Rolls Royce, giving this car a whole new look.

On top of that, this beautiful car has only 2,000 original miles.

Only 100 of these one-of-a-kind cars were made by a small Florida company between 1973 and 1977. This car was featured on the cover of the March 1976 issue of Car and Driver magazine.

Specs...

- 350 cubic-inch V-8 engine
- 2-barrel carburetor
- 145 horsepower
- 3-speed Turbo Hydra-Matic automatic transmission
- 116-inch wheelbase

# **1977 Chevrolet Nova 4-Door Sedan**

Minor changes for the 1977 model year included a more modern round gauge cluster to replace the long sweeping speedometer, and a revised dash panel which changed to a flatter design. Some new colors were offered - as with the rest of the Chevy models - and some small trim added.

Body choices for the fourth generation (1975-1979) of the Chevy Nova included the very popular 2-door coupe, a 3-door hatchback, and a 4-door sedan - like this one.



Three engines and four transmissions were available for every 1977 Chevrolet Nova. Buyers could choose from a 110-horsepower 250-cubic-inch inline six, a 145-horsepower 305 cubic-inch two-barrel V-8, or a 170horsepower 350 cubic-inch four-barrel V-8. Shifting was accomplished by three-speed or four-speed automatic or four-speed manual transmissions.

Novas might also be equipped with a heavy-duty suspension or the F41 sport suspension. A surprising number of police departments ordered Novas with either a 305- or 350-cubic-inch V-8 engine, following the lead of the Los Angeles Sheriff's Department, which had given the compacts an exhaustive evaluation.

Nova manufactured by Chevrolet

**Omega** manufactured by Oldsmobile

Ventura manufactured by Pontiac

**Apollo** manufactured by Buick

Take the first letter of each model and it spells out NOVA, each were pretty much identical cars with a few trim differences.

Specs...

- 250 cubic-inch inline six-cylinder engine
- 110 horsepower
- 3-speed automatic transmission
- 111-inch wheelbase
- 180,300 Nova 4-Door Sedans were produced in 1977

# Revision May 20, 2025 rev U 1978 Chevrolet C3 Corvette 25th Anniversary Special Edition (\*)

1978 was the Corvette's 25th anniversary, and all 78s featured silver anniversary nose and fuel door emblems. A new fastback rear window was the most dramatic and noticeable styling change, giving the ten-year-old C3 Corvette body style a fresh lease on life. The fixed-glass fastback benefited both aerodynamics and increased the usable luggage space



behind the seats while improving rearward visibility in the bargain. A shade was installed that could be pulled forward to cover the rear compartment to protect cargo and carpet against the sun. The tachometer and speedometer were redesigned to match the new "aircraft styled" center console and gauge cluster first seen the previous year. Redesigned interior door panels were also new as well as an actual glove box was added in front of the passenger seat, replacing the map pockets of previous years. Available options now included power door locks, a power antenna, dual rear speakers and a CB radio. The optional convenience group, introduced the previous year, now included intermittent (delay) wipers, floor mats, and the passenger side vanity mirror was an upgraded illuminated unit. The base L48 engine generated 185 hp (138 kW); Those destined for California or high altitude areas produced 175 hp (130 kW). Gone was the chrome-plated ignition shielding over the distributor, replaced with a metal-lined black plastic unit. The single-snorkel air intake used since 1976 was changed to a dual-snorkel set-up on L82 equipped cars helping to boost that output to 220 hp (164 kW). L82 engines were also now fitted with an aluminum intake manifold which saved 24 pounds compared to the cast iron unit of previous years. The Corvette converted to metric tires with the P225/70R15 as standard. Wider P255/60R15 tires were available as an option and required fender trimming from the factory for clearance. The fuel tank capacity increased from 17 gal to 24 gal on all cars. To make room for the larger tank, a smaller (P195/80D15) space saver spare tire was utilized. Two special editions were offered to celebrate Corvette's 25th year. Before he retired, Bill Mitchell had suggested a Silver Anniversary model in his

favorite color - silver, appropriately enough - and it appeared as the \$399 B2Z option package. The first two-tone paint option offered since 1961, it presented silver over a gray lower body with a separating pinstripe, plus aluminum wheels and dual "sport" outside mirrors as mandatory options, which added another \$380 to the cost. 6,502 Indy 500 Pace car replica editions were produced featuring Black/silver two-tone paint, front and rear spoilers, mirror-tint roof panels and contoured sport seats. Reviewers praised the car's classic strengths including its impressive straight-line numbers, especially an L48/automatic's 7.8 second 0-60 mph time and top speed of 123 mph (198 km/h), and noted its more refined, less rattling ride. On the other hand, they continued to note its weaknesses, like a rear-end that tended to step out during sharp maneuvers and a cabin that was still cramped and uncomfortable.

Road & Track took a 1978 L82 to 60 mph (97 km/h) in just 6.6 seconds, 127 mph (204 km/h) flat out, and covered the quarter-mile in 15.3 seconds at 95 mph.

1979 saw the crossed-flag emblems on the nose and fuel door revert to those seen on the '77 model. Three popular features introduced on the '78 pace car replicas made it into this year's production: the new bucket seats, the front and rear spoiler package, and the glass roof panels. The new lightweight "high back" seats were made standard equipment. The new seats had better side bolster, provided easier access to the rear storage area, and the seat pair resulted in a weight reduction of about 24 pounds. The bolt-on front and rear spoilers were offered as an option and nearly 7,000 cars were ordered so equipped. Functionally, the spoilers decreased drag by about 15% and increased fuel economy by about a half-mile per gallon. A bigger hit were the glass mirror-tint roof panels, now a regular option, with nearly 15,000 cars so fitted despite their costing \$365. All Ttops were now wired into the standard anti-theft alarm system. Tungstenhalogen high-beam headlights became standard as did an AM-FM radio, and for the first time a cassette tape player could be added as a \$234 option.<sup>[38]</sup> Heavy duty shock absorbers could now be ordered without the full Gymkhana suspension. An auxiliary electric engine cooling fan was first installed, but only on L82 equipped cars with air conditioning. Rocker panels and rear window trim were painted black. Output for all engines increased due to new "open flow" mufflers. The dual-snorkel air intake introduced on L82 cars the previous year was now fitted to all cars and the base engine now generated 195 hp (145 kW). The optional L82 engine increased to 225 hp (168 kW). This was the final year a manual gearbox could be ordered with the L82 engine. This was also the last year for the M21 close-ratio 4-

speed, a gearbox that, as in previous years, required the optional L82 engine. A wide-ratio 4-speed was available for all cars. Noteworthy is that about 82% of the cars were ordered with manual transmissions in 1968. In '79, less than 20% of the cars were delivered with manual

gearboxes.<sup>[10]</sup> This year reached an all-time high in Corvette popularity. Production hit its peak in 1979 at 53,807, a record that stands to this day.

Specs...

- 350 cubic-inch L48 V-8 engine
- 220 horsepower
- 3-speed automatic transmission
- 98-inch wheelbase


# 1979 Chevrolet Camaro Z28 Custom (\*)

The second-generation Chevrolet **Camaro is an American pony** car produced by Chevrolet from 1970 through the 1981 model years. It was introduced in the spring of 1970. Build information for model 123-12487 was released to the assembly plants in February of that same year. It was longer, lower, and wider than the first-generation Camaro. A convertible was no longer available.<sup>[3]</sup> GM engineers have said the second generation is much more of "a driver's car" than its predecessor. The highperformance Z/28 option remained available through 1975, redesignated as the Z28 in 1972.

The second-generation Camaro was an all-new car, with its basic mechanical layout familiar and engineered much like its predecessor: a unibody utilizing a front subframe, A-arm and coil spring front suspension, and rear leaf springs.



The chassis and suspension of the second generation were, however, refined in both performance and comfort; base models offered significant advances in sound-proofing, ride isolation, and road-holding. Extensive experience Chevrolet engineers had gained racing the first-generation led directly to advances in second-generation Camaro steering, braking, and balance. High-performance configurations were initially available, but the marketplace changed as 1970s progressed with fuel crisis, higher insurance rates, and tightening emissions regulations. Major styling changes were made in 1974 and 1978; 1981 was the final model year.

There were few changes to the 1979 Camaro. Engine choices remained with the 250 <u>I6</u>standard in the base and RS models, with the 305 2bbl being an option and standard on the newly introduced luxury-oriented Berlinetta model. It replaced the Type LT, and had a restyled instrument panel with a much flatter appearance than the previous wraparound design (although the gauges themselves remained in the same places as before). The base models, RS and Z28 remained, the Z28s came with a front spoiler and fender flares much like the Pontiac Trans Am already had, and came with "Z28" decals that ran from the beginning of the front flares to the bottoms of the doors.

An electric rear window defroster became an option, replacing the old blower type.

Sales for 1979 were 282,571 units, the highest ever for any generation Camaro before or since of which 84,877 Z28s.

Specs...

- 350 cubic-inch V-8 engine
- 200 horsepower (estimated)
- B&M "slapshifter" automatic transmission
- 108-inch wheelbase
- Base price of \$6,115 in 1997

# 1992 Chevrolet Corvette Lister C4 (\*)

General Motors authorized Lister North America to use the 1992 Corvette to build three concept cars for the 1993 Specialty Equipment Market Association (SEMA) show. There were notable body and drivetrain modifications to the 1992 Corvette by Lister. The modifications were performed by Lister Cars in England. GM was impressed with the rear end of the Lister it appeared on the C5.

This extremely rare Lister Corvette is serial number 2 of 3, but only two of the three built are believed to exist today. One was wrecked and the location of the third is unknown. The Lister Corvette was originally sold for \$80,000.

The Specs...

- 382 cubic-inch LT1 V-8 engine
- 4 Speed Manual
- 500 horsepower
- 454 pounds of torque
- Vortech super-charger
- Brembo brakes
- 17-inch wheels







Lou Costabile My Car Story - Lister



## Revision May 20, 2025 rev U 1993 Chevrolet Corvette Convertible 40th Anniversary Edition (\*)

1993 marked the fourth decade of America's sports car with a very special commemorative edition the 40th Anniversary Edition. This was an option package that was made available on all 1993 **Corvette models, Coupe,** Convertible, and ZR-1. All 40th **Anniversary Edition Corvettes and** only 40th Anniversary Edition **Corvettes are Ruby Red from the** inside out. With a unique deepshining metallic, special 40th anniversary emblems, and stunning ruby red interior. These Corvettes are truly a celebration of Corvette history.

The 1993 Corvette was the classic American two-seater. In addition to Corvette's LT1 V-8 engine, the 1993 Corvette also included sophisticated fully independent suspension with precision-crafted aluminum componentry, an all-disc-four-wheel anti-lock brake system, and a tractioncontrol system.

The 40th Anniversary package (priced \$1,455) was available in both standard and Z1 models and included power driver seat, special wheel center trim and 40th anniversary





emblems inside and out. The Corvette's ride was refined by reducing front wheel and tire width, and for the first time in GM history, was offered with a passive keyless entry system.

21,590 Corvettes were built for the 1993 model year. The 40th Anniversary package was available on all models, and was selected 6,749 times. Rare colors for this year are Black Rose Metallic (935 ordered), Quasar Blue Metallic (683 ordered), Competition Yellow (517 ordered), and Dark Red

at

Metallic (325 ordered). Just 488 coupes were selected both the 40th Anniversary package and the ZR-1 package, meaning they command among the highest prices for this vintage. Specs...

• 350 cubic-inch LT1 V-8 engine

- 300 horsepower
- 6-speed manual transmission
- 96.1-inch wheelbase
- 1 of 2,043 40th Anniversary convertibles

# 1994 Chevrolet Camaro Z28 (\*)

The Chevrolet Camaro is a mid-size American automobile manufactured by Chevrolet and classified as a "pony car". It first went on sale on September 29, 1966, for the 1967 model year and was designed as a competing model to the Ford Mustang. The Camaro shared its platform and major components with the Firebird, produced by **Chevy's sister division** Pontiac, also introduced in 1967.

Four distinct generations of the Camaro were developed before production ended in 2002. Over those 36 years, more than 5 million Camaros were sold.

The fourth-generation Camaro debuted in 1993 on an updated F-body platform. It retained the same characteristics since its introduction in 1967 - a coupe body style with 2+2 seating and an optional Ttop (like this one).

The Camaro was the Indy 500 pace car four times, and a star performer in the Trans-Am racing series, as well as in Sports Car Club of





America class competitions. Since 1967, through four generations, the Z28 has been the muscle car of the Camaro marque.

Specs...

- 350 cubic-inch V-8 engine
- 275 horsepower
- 4-speed automatic transmission with overdrive
- Four-wheel disc brakes
- 101.1-inch wheelbase

# 1995 Chevrolet C4 Corvette Coupe (\*)

Even with eleven years already behind it, the C4 Corvette still managed to receive the accolades of enthusiasts and critics alike. It received praise for its jaw-dropping acceleration and equally for its intense road grip and superior handling. However, with the announcement that an all-new, fifth generation Corvette was under development and on track for the 1997 model year, there were few who were surprised by Chevrolet's decision to make minimal changes to the existing C4 Corvette coupe, and to completely eliminate the ZR-1 early in the 1995 production year.

That's not to say that there weren't any changes made to the 1995 Corvette.

Mechanically, the already robust LT1 engine received additional refinements.

The connecting rods were revised to improve strength and weight uniformity, the engine fan was made quieter, and the fuel injection system was improved to utilize alcohol-blend fuels, which began to have an increased appearance at gas pumps around the world at about that same time. Additionally, the new fuel injectors were developed to reduce fuel dripping when the engine was turned off.





Beyond the engine, additional mechanical improvements were also made to the drive train and other areas of the car. The electronically controlled fourspeed automatic transmission was refined to provide smoother shifting, and the torque converter was made stronger and lighter.

## Specs...

- 350 cubic-inch V-8 engine, 300 horsepower
- Multi-port fuel injection
- 4-speed automatic transmission
- 96.2-inch wheelbase
- \$36,785 base price new
- 20,742 C4 Corvettes produced in 1995, with 15,771 of those being coupes

## **1995 Chevrolet Monte Carlo Z34 (\*)** This is the Inaugural Brickyard 400 Pace car, at the Indianapolis Motor Speedway, which was won by Dale Earnhardt.

The Pace Car program took the phrase "what wins on Sunday, sells on Monday" to a whole new level. It gave buyers the opportunity to see what would become their favorite streetcar in action. Although the cars were not really racing, nor were they capable of keeping up with the race cars on the track, the program glorified the cars as being able to tame all that power that paced behind them.

General Motors was probably the biggest beneficiary of the Pace Car program, and this unique 1995 Chevy Monte Carlo Z34 Brickyard 400 Pace Car Coupe is one of the rarer examples.

This 1995 Chevy Monte Carlo Z34 Brickyard 400 Pace Car Coupe has less than 6,000 miles and is one of only 400 made. For 1995,



the Monte Carlo was loaded, with features like power steering, power brakes, power seats, power locks, and power windows. It has air conditioning, an AM/FM radio with CD player, cruise control, rear defogger, Aero wing spoiler, accent stripe package, and more.

The Monte Carlo was produced for model years 1970 to 1988. It was revived in 1995, replacing the two-door Lumina. In response to declining sales, Chevrolet discontinued the Monte Carlo only two years later.

The two-door Lumina was renamed as Monte Carlo for the 1995 model year. Deriving its design from a namesake 1992 concept car, the fifth-generation Monte Carlo was again a counterpart of the Buick Regal, Oldsmobile Cutlass Supreme, and Pontiac Grand Prix coupes (and sedans). Shifting to the GM W-body chassis meant the Monte Carlo became front-wheel drive for the first time and no V8 engine was available. The Monte Carlo was assembled alongside the Lumina in Oshawa, Ontario, Canada.

In its revival, the Monte Carlo was exclusively a coupe (in contrast to its divisional counterparts). Alongside the second-generation Lumina, the Monte Carlo was fitted with dual airbags and ABS (adding daytime running lights in 1997).

The Monte Carlo shared its trim with the second-generation Lumina, including a base LS and a sport-oriented Z34. The two versions were externally similar, with the Z34 featuring red-colored badging, a lower front air dam, and blacked-out trim (instead of chrome). Z34s were equipped with 16-inch 5-spoke alloy wheels, which were an option for the LS (in place of 15-inch wheelcovers). For 1998, the Z34 received redesigned alloy wheels, with the previous style remaining optional on the LS.

The LS was powered by a 160hp 3.1L V6; the Z34 used a 215hp 3.4L V6; for 1998, the Z34 received a 200hp 3.8L V6 (increasing torque output). All three V6 engines were paired to a 4-speed automatic transmission.

In LS trim, the fifth-generation Monte Carlo was the final mass-produced six-passenger, two-door sedan offered for sale. As with nearly all coupes (and many four-doors), the Z34 was offered with bucket seats and a floor-mounted shifter.

Specs...

- 3.4L twin-cam V-6 engine
- 210 horsepower
- 4-speed automatic overdrive transmission

# 1997 Chevrolet Camaro Z-28 SS 30th Anniversary Edition (\*)

## (This Camaro has been modified to honor the 30th Anniversary Edition, but is not a true Anniversary Edition according to the coding of the VIN)

The fourth-generation Chevrolet Camaro is a pony car that was produced by American automobile manufacturer General Motors for the 1993 through 2002 model years. It was introduced on an updated F-body platform but retained the same characteristic since the first-generation's introduction back in 1967: two doors, coupe or convertible body styles, rear-wheel drive, and a choice of 6-cylinder and V8 engines. The Camaro was revised in 1998 with both exterior and engine changes. General Motors discontinued production of the fourth generation of the Camaro due to slow sales, a deteriorated sports coupé market, and plant overcapacity.

The Chevrolet Camaro SS was a highperformance variant of the Fourth Generation Camaro that was introduced for the 1996 model year. When introduced in 1993, it was offered with the Z28 upgrade for those seeking more punch in performance. Starting in 1996, Street Legal Performance (SLP) teamed up with Chevrolet to develop the new SS. This new performance package started with a base Z28 package, which was delivered to SLP where they made slight exhaust modifications and upped the horsepower from 275 to 310 hp. The SS also included a functional stinger hood scoop and a duck tail rear spoiler. A small window of 1996 cars may wear both Z28 and SS badging but ultimately the Z28 call outs were removed, and SS badges and center caps solely adorned the car.

For the 1997 model year, the Camaro featured a new interior and tri-colored taillights that would be standard on all models from 1997 to 2002. A "30th Anniversary Limited Edition" trim package, commemorating 30 years since the Camaro





was introduced, was added to the range which included unique orange stripes on white base paint. It was only available on the Z28, SS, and RS models. A 30th Anniversary Camaro may be identified by RPO code Z4C on the trim tag. A total of 979 30th Anniversary models were made in 1997. New 5-spoke 16-inch wheels became standard on the Z28 this year (17-inch ZR-1 style on SS coupé models) available in either polished, chrome, or white (only on the 30th Anniversary models), replacing the previous 10spoke turbine style design.

Finished in Arctic White with Hugger Orange stripes, this 1997 Camaro Super Sport was built by SLP to commemorate Camaro's 30th birthday and is one of only 957 30th Anniversary Camaros built. Of these, only 251 were convertibles, and only 136 got the 6-speed transmission like this car.

Specs...

- LT1 5.7-liter V-8 engine
- 285 horsepower
- 6-speed manual transmission
- 101.1-inch wheelbase
- Sold originally for about \$30,000

## Revision May 20, 2025 rev U 2002 Chevrolet Camaro SS 35th Anniversary (\*)

The fourth-generation Chevrolet Camaro is a pony car that was produced by American automobile manufacturer General Motors for the 1993 through 2002 model years. It was introduced on an updated F-body platform but retained the same characteristic since the firstgeneration's introduction back in 1967: two doors, coupe or convertible body styles, rear-wheel drive, and a choice of 6-cylinder and V8 engines. The Camaro was revised in 1998 with both exterior and engine changes. General Motors discontinued production of the fourth generation of the Camaro due to slow sales, a deteriorated sports coupé market, and plant overcapacity.

In 2002, General Motors and Chevrolet decided to mark the 35th anniversary of the iconic Camaro with a special edition model based on the Chevrolet Camaro SS.

The final fourth-generation Camaro was built on 27 August 2002 after which the Boisbriand plant, located in the province of Quebec just outside of Montreal then closed down. Total production for 2002 was 42,098 units.

GM's Performance Division unveiled a Z28 show vehicle at the 2002 Woodward Dream Cruise as a sendoff for the Camaro's 35-year heritage. It emulated the 1960s and 1970s Penske-Sunoco stock TransAm race team vehicles. The 35th Anniversary trim package was also available for the SS.

Appropriately dubbed the Camaro SS 35th Anniversary, the limited-run twodoor was painted "Bright Red" and featured a model-specific hood scoop







and unique grey exterior vinyl decals. The interior, meanwhile, featured two-tone black and gray leather upholstery with 35th Anniversary' logos embroidered on the seat headrests. These models also came with a special edition glovebox case that included inscribed tire pressure and tread depth gauges, a branded pen and Post-It Note pad, a history booklet, and a polish cloth.

Both coupe and convertible versions of the Chevrolet Camaro 35th Anniversary were offered - but all were based on the V8-powered SS model. A total of 3,000 were constructed - about half coupes and half convertibles.

Specs...

- 5.7-liter, LS1 V-8 engine
- 325 horsepower
- 6-speed manual transmission
- Composite doors, top, front fenders, bumpers and hatch
- Air conditioning
- 500-watt stereo
- Forced-induction hood

## **Rick DeBruhl Commentary - "The Last Camaro?"**





## Revision May 20, 2025 rev U 2003 Chevrolet Corvette Coupe 50th Anniversary (\*)

The Chevrolet Corvette (C5) is the fifth generation of the Corvette sports car, produced by the Chevrolet division of General Motors for the 1997 through 2004 model years unveiled on January 6, 1997 at the North American International Auto Show in Detroit. Production variants include the high performance Z06. Racing variants include the C5-R, a 24 Hours of Daytona and 24 Hours of Le MansGTS/GT1 winner. The C5 Corvette was the first GM vehicle to feature the third-generation small block "LS" engines. Pop-up headlights were featured on a Corvette for the final time during this generation.

The fifth generation was originally intended to debut in 1993 to celebrate the



Corvette's 40th anniversary, but it was delayed by financial troubles and changes in staff within GM. A major change from its predecessor the C4, the C5 had a hydroformed box frame, a design that offered an improved structural platform, especially for a convertible body style. To improve handling, the transmission was relocated to form an integrated, rearmounted transaxle assembly. Connected to the all-new LS1 engine via a torque tube, the engine/transmission arrangement enabled a 50-50% front-rear weight distribution. The LS1 engine initially produced 345 hp (257 kW), subsequently increased in 2001 to 350 hp (261 kW). The 4L60-E automatic transmission carried over from previous models, but the manual was replaced by a Borg-Warner T-56 6-speed capable of a 265 km/h (165 mph) top speed. Relative to the C4, the new platform and structural design substantially reduced squeaks and rattles.

A 50th Anniversary Edition (RPO Z25) was offered during the 2003 model year to commemorate a half-century of Corvette production. Available in convertible and coupé models, the 50th Anniversary Edition came with a special shade of red paint ("Anniversary Red Metallic") and shale two-tone leather interior; Anniversary Edition convertibles were adorned with a shalecolored soft top as well. A new option for Corvette in 2003, the F55 Magnetic Selective Ride Control Suspension was standard on the 1SC-

equipped Anniversary Edition vehicles. Special ("Warm Nickel Metallic") painted aluminum wheels, embroidered upholstery trim, and badges completed the Anniversary Edition package. Also included were all of the convenience options offered on the upscale Corvette models such as the head-up display. A slightly modified 50th Anniversary Edition Corvette was chosen to pace the Indianapolis 500 race in May 2002; then the production vehicle became a centerpiece of the subsequent 50th Anniversary Celebration, sponsored by Chevrolet. Festivities included gatherings in Nashville, Bowling Green, and St. Louis. Thousands of Corvettes and their owners arrived from all over the country to participate in the events marking the vehicle's 50th year of production.

This special Corvette was purchased by our founder Mel Martin at the 2023 Mecum Auction in Glendale. Bloomington Gold Certified, Odometer reads only 14 miles, Anniversary Red with Shale interior 2002 Indy 500 Pace Car graphics, 2003 Corvettes sold originally for \$50-\$56k.

Specs...

- LS1 5.7 liter / 350 horsepower V-8 engine
- Sequential port fuel injection
- Automatic transmission
- Magnetic Select Ride Control
- Heads up display
- Power steering, brakes, windows, locks, seats and mirrors
- Champagne painted 5-spoke wheels
- 104.5-inch wheelbase



## Revision May 20, 2025 rev U 2010 Chevrolet Camaro Transformer Edition (\*)

On July 22, 2009, to coincide with the release of Transformers: Revenge of the Fallen, GM announced a Transformers Special Edition appearance package for the 2010 Camaro at the 2009 San Diego Comic-Con. The US \$995 appearance package (RPO code: CTH) could be applied to LT and SS trims with or without the optional RS package and could only be applied to orders made in the Rally Yellow exterior scheme. The package included an Autobot shield badge on the driver and passenger side fenders underneath the Camaro nameplate, an Autobot shield on each of the four wheel's center cap, an Autobot shield embroidered on the interior center console, a Transformers logo on the driver and passenger doors' sill plates replacing the original "Camaro" labeled plates, and highgloss black center rally stripes with the Transformers ghost logo embedded. This then made the 2010 Camaro resemble the Bumblebee Camaro from the 2007 movie, often referred to as T1 Bumblebee. Production of the add-on package ceased on January 12, 2010, with an estimated 1,500 units produced. 1,916 units were finally produced at the end of 2010.

Upon acquiring the car, the Martin Auto Museum reached out to a sculpture artist in Los Angeles to build the "life-size" Bumblebee





Transformer sculpture displayed behind the car. The Bumblebee Transformer sculpture took months to build and is constructed of hundreds of car parts and pieces scrap metal.

The fifth-generation Chevrolet Camaro is a pony car that was manufactured by American automobile manufacturer Chevrolet from 2010 to 2015 model years. It is the fifth distinct generation of the muscle/pony car to be produced since its original introduction in 1967. Production of the fifth-

generation model began on March 16, 2009 after several years on hiatus since the previous generation's production ended in 2002 and went on sale to the public in April 2009 for the 2010 model year.

On August 10, 2006, GM Chairman and CEO Rick Wagoner announced that the company would build an all-new version of the Chevrolet Camaro based on the award-winning concept that debuted at the 2006 Detroit auto show in January 2006. The new Camaro was originally scheduled to begin production in 2008 and to go on sale in the first quarter of 2009 for the 2009 model year, but General Motors stated in March 2008 that production would be delayed until February 2009 with the Camaro going on sale in the spring of 2009 for the 2010 model year.

Specs...

- 6.2-liter LS3 V-8 engine
- 426 horsepower
- 6-speed manual transmission
- Less than 300 miles when purchased

# 2012 Chevrolet Camaro RS Coupe 45th Anniversary Edition (\*)

This is a customized example of the 45th Anniversary Edition of the 2012 Chevy Camaro RS Coupe. The original had a 323horsepower, 3.6-liter V-6 engine - which the builder replaced with V-8 power. Suicide doors, accent lighting and other custom touches were added as well.

Changes to the 2012 Chevrolet Camaro include the introduction of the 323 hp (241 kW) 3.6 L direct injection LFX V6 engine replacing the outgoing V6 engine, a new FE4 suspension package for SS coupe (retuned front and rear dampers, new solid front (23 mm) and rear (24 mm) stabilizer bars, 20-inch aluminum wheels with P245/45R20 front and P275/40R20 rear tires (from the SS)), a revised instrument panel appearance (new instrument graphics and trim), a new steering wheel design with improved ergonomics, a power lift feature for the front passenger seat, a new Rear Vision Package (a rearview



camera system and an auto-dimming mirror to the existing Rear Park Assist feature), a new rear spoiler as standard, taillamps from RS appearance package option becomes standard for all vehicles. Crystal Red Tintcoat replaces Red Jewel as an exterior color.

Changes to the RS package include a new, body-color 'sharkfin' antenna.

The 45th Anniversary Special Edition is based on 2LT and 2SS for both coupe and convertible body styles, with a unique rally stripe in red and silver on the hood and deck, Carbon Flash Metallic body color, badges located beneath the front fender emblems, new-design 20-inch wheels in dark silver, fog lamp and taillamp bezels finished in dark silver, RS-style taillamp lenses, standard rear spoiler and HID headlamps, body-color roof molding, Jet Black interior with leather-trimmed seats featuring the 45th Anniversary logo, white instrument panel and door trim inserts with the 45th Anniversary logo on the instrument panel, red, white and blue stitching on the seats, steering wheel, shift knob/boot, door armrests, and console lid; as well as 45th Anniversary logo on the steering wheel and sill plates.

The 45th Anniversary Special Edition was unveiled in Camaro5 Fest II in Arizona.

Japanese models went on sale in January 2012. Early models included coupe (LT RS, SS RS), convertible, 45th Anniversary Special Edition.

Specs:

- \$34,225 msrp in 2012 (equal to \$45,975 in 2024)
- 3.6L (217.5 ci) DOHC 60° V6 Engine, 11.5:1 Compression, direct injection, 4 valves per cylinder
- Bore: 3.7 in (94 mm) Stroke: 3.37 in (85.6 mm)
- 323 hp @6,800 rpm, 278 lb-ft @4,800 rpm, Redline: 7,200 rpm
- 6 speed automatic, 3.27:1 axle ratio
- 3719 lb (1687 kg) curb weight

**Performance:** 

- 0-60 mph: 5.7 seconds
- 1/4 mile: 14.1 seconds @99 mph
- Top speed: 158 mph (254 kph) Modifications:
- Different wheels, rear spoiler, ZL1 style hood and bumper, blue LED accent lighting, suicide doors

# 2016 Chevrolet Corvette C7 Stingray (\*)

The Chevrolet Corvette (C7) is the seventh generation of the Corvette sports car manufactured by American automobile manufacturer Chevrolet from 2014 until 2019. The first C7 Corvettes were delivered in the third quarter of 2013. The racing variants include the C7.R, which won the GTLM 24 Hours of Le Mans.

GM executives began planning the nextgeneration (C7) Corvette sports car in 2007. The car was originally planned for the 2011 model year, but was delayed. Mid-engine and rearengine layouts had been considered, but the front mid-engine, rear-wheeldrive platform was chosen to keep costs lower.

The lead exterior designer of the C7 Corvette was Hwasup Lee, whose team completed the design between 2010 and 2011. The design director for the C7 was Kirk Bennion and the design was approved by the division's design director, Tom Peters, in 2011.

The 2014 Corvette debuted on Sunday, January 13, 2013, in Detroit at the North

American International Auto Show. Chevrolet also showed the new crossed flags logo for the Corvette.

The 2016 Chevrolet Corvette was offered as a coupe or convertible in base Stingray, Stingray Z51 or Z06 trim. The Stingray Coupe - like this one featured a removable roof panel that stows in the trunk.

This stunning 2016 Corvette Stingray has only 8,628 original miles on the odometer.

A mid-year production change involved the phasing out of 4 exterior colors and the addition of a new color, Admiral Blue, at the end of the 2016 production run.





Three "design packages" were offered: the Twilight Blue Design Package, Spice Red Design Package, and Jet-Black Suede Design Package. They were available on 3LT and 3LZ trim models. The Twilight Blue and Spice Red packages included full-color instrument panel, doors, and seats, chrome badges, and Shark Gray painted exterior vents. Convertible models included a blue, red, or black top matching the package. The packages included special aluminum wheels, 19" front and 20" rear, painted Pearl Nickel in the Twilight Blue and Spice Red packages for the Z06, and Satin Black in the Jet-Black package. The design packages were offered with white, gray, and silver exterior colors, along with a color matching the package (Night Race Blue, Long Beach Red, and Black, respectively).

Z06 C7.R Edition (ZCR) - Available only with 3LZ trim, the Z06 C7.R Edition is primarily an appearance package. Interior features include a Jet-Black leather trimmed and suede wrapped interior, competition sport seats, suede wrapped steering wheel and shifter, yellow contrast stitching, carbon fiber interior package, C7.R Limited-Edition interior plaque (includes racing victories) and Corvette Racing sill plates. On the exterior, changes include black Z06 Wheels with yellow stripe, yellow brake calipers, Corvette Racing wheel center caps, visible carbon fiber, Spectra Gray grille and vents, C7.R graphics, and the Z07 Performance Package with carbon ceramic brakes. The package is available in either Black or Corvette Racing Yellow exterior colors. It included its own sequential VIN starting with 700001. Only 500 units were produced.

## Specs...

- 6.2-liter V-8 engine
- 460 horsepower
- 7-speed manual transmission
- 106.7-inch wheelbase
- Base price of \$59,400 new

# 2020 Chevrolet Corvette C8 (\*)

The Martin Auto Museum has an extensive and historical collection of Chevy Corvettes that could only be complete with the newest design - the first midengine Corvette. As Car and Driver put it: "What's new for 2020? Everything. The 2020 Corvette is new from top to bottom." Car and Driver continued: "The long wait is finally over, and the new midengine Chevy Corvette is as good as we could have imagined. So good, in fact, that it earned a 2020 10 Best Award right out of the gate. The eighth-generation Corvette (a.k.a. C8) now boasts an engine behind the passenger cabin, just like the best from Porsche, Ferrari, and McLaren but at many thousands of dollars less."

The Chevrolet Corvette (C8) is the eighth generation of the Corvette sports car manufactured by American automobile



manufacturer Chevrolet. It is the first rear mid-engine Corvette since the model's introduction in 1953, differing from the traditional front mid-engine design started in 1963. The C8 was announced in April 2019, and the coupe made its official debut on July 18, 2019, in Tustin, California. The convertible made its debut in October 2019 during a media event at the Kennedy Space Center to coincide with the 50th anniversary of the Apollo 11 mission. Production officially began on February 3, 2020, delayed by the 2019 General Motors strike.

The racing version, the Chevrolet Corvette C8.R, debuted in July 2019 and won the 2023 FIA World Endurance Championship.

Following several experimental CERV prototype vehicles, the C8 is GM's first production rear mid-engine sports car since the Pontiac Fiero was discontinued. It features a vastly different design from previous Corvettes, with an all-new aluminum architecture and coil-over springs in place of leaf springs used on prior models. The exterior features more aggressive aerodynamics including larger air intakes and prominent side scoops. A trunk is located at the rear, with additional storage space at the front of the car. Combined, these provide 13 cubic feet (370 L) of cargo space, 2 cubic feet (57 L) less than that of the C7. As a result of the switch to a mid-engine layout, the passenger cell has been shifted forward by 16.5 inches (420 mm). The cockpit has been designed to be driver-centric, with numerous controls mounted on the center console as well as utilizing a new hexagonal steering wheel. A 12 in (30.5 cm) digital screen replaces the instrument cluster and reflects one of the six driving modes selected, and is accompanied by an 8 in (20.3 cm) touchscreen. A special Z button (a homage to Zora Arkus-Duntov "Father of the Corvette") is also mounted on the steering wheel; this can guickly activate customized performance settinas.

Specs...

- 6.2-liter V-8
- 490 horsepower
- Dual-clutch automatic transmission

What is next... The E-Ray performance hybrid version of the C8 Corvette, don't you think that we need one of these as well. It will certainly have its place in automotive history.

# 1947 Chrysler Town & Country Sedan (\*)

The Town & Country Sedan was first manufactured by Chrysler from 1940 to 1942 and from 1945 to 1988, with production suspended during World War II.

In the immediate post-war era, the American public was eager to return to normal life. Automakers struggled to keep pace with demand, especially with a shortage of raw materials. But Chrysler had a bit of a head start because they envisioned a woodbodied Town & Country in 1941.

Primarily produced as a luxury station wagon, the Town & Country was also available in "woodie" fourdoor sedan, two-

door hardtop and convertible body styles from 1947 to 1950, 1968 to 1969 and from 1983 to 1986. The 1988 model year was the last for the station wagon until the 1990 model year when Chrysler reintroduced the

Town & Country nameplate as the rebadged variant Chrysler Town & Country minivan.

From 1947 through 1950 Town & Country was built using structural wood of white ash with contrasting panels of rich Honduran mahogany. The wooden body parts were supplied by Pekin Wood Products from Helena, Arkansas, that were then shipped to Chrysler's Jefferson Avenue plant in Detroit for final fitment and assembly. The wooden framing was built from straight-grained ash, and then hand fit, as every compound curve and wood-to-metal interface had to be created by hand. The roof, however, remained solid steel.







In 1947, only 2,651 Chrysler Town & Country Sedans were produced. The Town & Country continued production until 1988.

Rick DeBruhl Commentary - <u>The really cool Chrysler Town and Country</u> <u>that's not a minivan!</u>



The Specs...

- 250 cubic inch, 4.1 Liter 6-cylinder engine
- 114 horsepower
- 4-speed semi-automatic transmission
- 4-wheel hydraulic brakes
- Car weighs 3,955 pounds

## Revision May 20, 2025 rev U 1963 Chrysler 300 Pace Setter Convertible (\*)

The Chrysler Pace Setter Series commemorated the use of a Chrysler 300 as the Pace Car for the 47th Annual Indianapolis 500 in 1963. This was the first time a 300 series car would pace the Indianapolis 500, and the fifth time Chrysler would do it since 1926. A total of 1,861 Pace Setter convertibles were built, most of which were painted Pace Car Blue with a base price of \$4, 129.

The Pace Setter models were given special alabaster white interior, bucket seats, and a "square" steering wheel. Other features included power steering, power brakes, power windows, and fourway power bucket seats. The special edition Pace Setter cars were identified by a small, checkered flag placed below the front fender 300 emblem.

The 1963 Chrysler 300 Series used the same body type as in 1962.

NOTE: NOTE: The 47th International 500-Mile Sweepstakes was held at the Indianapolis Motor Speedway in Speedway, Indiana on Thursday, May 30, 1963. Rufus Parnelli Jones took his only Indy 500 win. This win was controversial because his car (nicknamed "Calhoun") spewed oil







from a cracked overflow tank for many laps, which allegedly caused at least one driver to spin and crash. USAC officials put off black-flagging Jones after car owner J. C. Agajanian ran down pit lane and convinced them that the oil

leak was below the level of a known crack and would not leak any further.<sup>[3]</sup> Lotus owner Colin Chapman, whose English-built, rear-engine Lotus-Ford finished second in the hands of Scotsman Jim Clark, accused USAC officials of being biased in favor of the American driver and car.

The non-black flagging of Jones remains controversial. Many, including Chapman and writer Brock Yates, believed that officials would have black flagged Jones if an American driver and car had been in second place instead of Clark in the British built Lotus. Goodyear arrived at the track and supplied tires for some entries, but participated only in practice. No cars used Goodyear tires during time trials or the race itself. It was the first time since about 1921 that Goodyear attempted to compete at Indy. Goodyear had last won the race in 1919.

## Specs...

- Push button 3-speed Torqueflite automatic transmission, 3.23:1 axle ratio
- \$4,129 msrp in 1963 (equal to \$41,616 in 2024), worth about \$25,000 Specs:
- 6.3L (383 ci) OHV 90° V8 Engine, 10:1 Compression
- Bore: 4.25 in (107.95 mm) Stroke: 3.375 in (85.73 mm) 305 hp @4,600 rpm, 410 Ib-ft@2,400 rpm, Maximum rpm: About 5,000 rpm
- 4080 lb. (1850 kg) curb weight
- Performance: 0-60 mph: 8.2 seconds, 1/4 mile: 16 seconds @86 mph, Top speed: 119 mph (192 kph)
- Modifications: Original engine was replaced at some point by a 1973 400ci (6.6L) Chrysler V8 (looks almost identical externally)



Memorial Day, 1963 will bring over 250,000 people out to see the 47th Annual 500-Mile Race at the Indianapolis Speedway... and this year, setting the pace will be a fully equipped Chrysler "300" Convertible, with bucket seats. This car will be presented to the winner of the race as a gift from the Chrysler Dealers of Indiana.

Mr. Tony Hulman, Speedway president said, "We are pleased to have Chrysler as our pace car for this year. It has an outstanding heritage as a pioneer in the high performance field and has earned the right to lead the way on race day."

Besides the distinction of leading the field of thirty-three starters in the big race... the "300" will also be the official car for all 1963 festival activities.

"300" Pace Setter Gives Dealers Added Acceleration in Sales Race!

This is the year that Chrysler Motors Corporation is driving forward in the all-important sales race ... and with proper promotion you'll have a real sales winner with the Chrysler "300" Pace Setter. By now, you should have all your promotional items to help push the big sales-pacer of 1963 . . . your "300" Convertible.

Window Posters
Promotion

Suggestions

Showroom Trim
Miniature
Pace Cars

... and the complete selection of items at your disposal.

1963 is a winning year for Chrysler Motors Corporation ... and your dealership can be a sales winner too! Keep this successful selling year going ... and like our "300" Convertible, you'll be the Sales Pace Setter for 1963.



Tony Hulman, Speedway President





# 1936 Cord 810 Phaeton (Replica) (\*)

Titled as a 1963 Cord, this is one of only five full-size, factory-built replicas of the 1936 Cord 810 Phaeton. It provides the classic look of the 1936 Cord Phaeton with many of the features of modern automobiles. It was restored in 2005 by Schaeffer & Long of Magnolia, New Jersey, who have been restoring antique and classic cars for more than 40 years in the same location.

The Cord 810 was a luxury automobile produced by the Cord Automobile division of the Auburn Automobile Company in 1936. The styling of the Cord 810 was the work of designer Gordon M. Buehrig and his team of stylists, which included young Vince Gardner and Alex Tremulis.

It was the first American-designed and built front wheel drive car with independent front suspension. It was preceded by Cord's own 1929 Cord L-29, and the French 1934 Citroën Traction Avant front wheel drive cars, but the Cord 810 (along with the Cord 812 in 1937) was commercially less successful than these.

The Cord 810 was also the first





production car to feature hidden, pop-up headlights. Additionally, the radical new styling of its nose completely replaced the traditional radiator grille, in favor of horizontal louvers, that curved all around the sides of the nose, earning the car's styling the nickname of coffin nose.

1936 came in four models: the entry-level sedan at US\$1995, the Beverly sedan (\$2095), Sportsman (\$2145), and Phaeton (\$2195).

The car caused a sensation at its debut at the New York Auto Show in November 1935. The crowds were so dense attendees stood on the bumpers of nearby cars to get a look. Cord had rushed to build the 100 cars needed to qualify for the show, but the transmission was not ready. Even so, Cord took many orders there, promising Christmas delivery. Expected production of 1,000 cars per month failed however to materialize, as the semi-automatic transmission proved more troublesome than expected. The first production cars were not ready to deliver until February, and did not reach New York City until April 1936. In all, Cord managed to sell only 1,174 of the new 810 in its first model year, as the result of mechanical troubles.

Specs...

- General Motors V-8 engine
- Automatic transmission
- Power steering
- Banjo-style steering wheel
- 125-inch wheelbase
- Less than 17,000 original miles

# 1939 Crosley Convertible (\*)

In 1939, a Crosley was an odd duck of a car. Built by home appliance magnate Powell Crosley, who was 6'4' tall, these diminutive cars were powered by a 12 horsepower, two-cylinder air cooled engine. Weighing in at less than 1,000 pounds, the Crosley was as about as bare bones and utilitarian as a car could get. The only real luxury you could get in a Crosley was one of the company's famous radios. But these 80-inch

wheelbase wonders did have two things going for them.

The first was the low entry price of \$325 for a convertible coupe and \$350 for a convertible sedan.





Second was the fuel economy these lightweight runabouts provided. Crosley claimed that they were capable of 50 miles per gallon, but 40 miles per gallon was more realistic.

Crosley's dreams of selling 50,000 of the cute cars through department stores and the dealer network for his other appliances was a bit optimistic. They ended up selling 1,200 cars in 1939. Combined production from 1940 through 1942 added up to around 5,000 cars.

Specs...

- 12 horsepower Waukesha engine
- Rear wheel drive
- 3-speed transmission
- 80-inch wheelbase
## Rick DeBruhl's commentary - This 1939 Crosley was too small to be big!



# 1948 Crosley CC Convertible (\*)

Crosley was a small, independent American manufacturer of subcompact cars, bordering on microcars. At first called the Crosley Corporation and later Crosley Motors Incorporated, the Cincinnati, Ohio, firm was active from 1939 to 1952, interrupted by World War II production.

The Crosley CC models include all the standard models such as station wagon, sedan, convertible, panel delivery and pickup. The CC series was introduced in mid-1946 and were referred to as 1947 model year. Since they have a unique serial number, most people refer to them as 1946 models. Production of CC models ran through late 1948.

Even though Crosley was shipping an all-new body and a new engine, most of the rest of the chassis and brakes were left over from pre-war production.

These little cars were well built but underpowered even in their day. The 44 cubic-inch engine was a novel design first used during World War II to power generators for the US Navy. Called the CoBra for the novel copper brazing method of steel stampings to create the upper block. The bottom end was cast

aluminum. The little engine performed beyond expectations in the wartime generators but use in automobiles proved troublesome. Galvanatic action between the dissimilar metals and the corrosive effects of the antifreezes of the time lead to premature failures. Crosley switched to a cast iron block in 1949, and you will find this block under the hood of nearly all running Crosleys today, including this one,

The Specs...

- Weighs less than 1,000
- Original manual 3-speed T-92 transmission
- Factory rebuilt cast iron engine dated June 1948
- Original Tillotson DY9B carburetor





## 1948 Crosley Super Sedan (\*)

Crosley was a small, independent American manufacturer of subcompact cars, bordering on microcars. At first called the Crosley Corporation and later Crosley Motors Incorporated, the Cincinnati, Ohio, firm was active from 1939 to 1952, interrupted by World War II production. Crosley had a number of firsts in automotive history, including: first affordable, mass-market car with an overhead camshaft engine in 1946; first use of the term "sport utility" vehicle in 1947, for a 1948 model year convertible wagon; first American cars to be fitted with 4-wheel caliper type disc brakes; and America's first post-war sports car, the Hotshot, in the 1949 model year.

All of Crosley's models were lightweight (1,100 to 1,400 pounds) body-on-frame cars with rigid axles front and rear, and engines with less than 61 cubic inches of displacement. The vast majority of all Crosleys were built on an 80-inch wheelbase and with leaf-springs.





A 1947 test of the Crosley sedan "There is leg room for a man as tall as six feet two or three but due to the over-curve of the top and the window design, he may have to duck to see left or right, and unless he is narrowshouldered he will have to ride these things side saddle or not at all. On the other hand, the tester deemed that the chassis rides exceptionally well," and said it was "undoubtedly the best of the miniature type ever made in this country."

The Specs...

- Weighs 1,155 pounds
- 80" wheelbase
- 44 cubic-inch inline four-cylinder engine
- Tillotson one-barrel carburetor
- 26.5 horsepower
- Sold for \$943 new

# 1950 Crosley Hot Shot (\*)

The Crosley Hot Shot roadster was introduced in 1949 and over a four-year period approximately 2,500 Hot Shot roasters were produced. They were simple and light, with removable half doors being optional. The Hot Shot was recognized as America's first post-war production sports car.

The two-passenger lightweight roadster

was powered by a new cast iron engine, or CIBA, developed by Crosley, replacing the previous sheet metal block which had caused issues for Crosley.

The Hot Shot could be stripped down to 900 pounds and reach speeds of up to 90 mph, allowing the tiny car to make some noise on the racing circuit during this period. The Hot Shot won at Sebring, Grand de la Suisse and

SCCA competitions. A Crosley Hot Shot Roadster was entered in the inaugural Sam Collier Memorial Sebring Grand Prix of Endurance in 1950. That year, the race was contested on an index of performance formula where speed was balanced by efficiency. The little Hot Shot, although it was lapped nineteen times by second-place Ferrari 166, took the trophy demonstrating the Crosley's combination of performance and economy.

The Specs...

- Weighs 1,095 pounds
- 85" wheelbase
- 44 cubic-inch inline four-cylinder engine
- Tillotson one-barrel carburetor
- 26 horsepower
- Sold for \$849 new

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## 1950 Crosley Super Wagon (\*)

Crosley built its minicars for what it termed "the forgotten man" - those who shunned the bigger-is-better trend of U.S. automobiles. And for a brief time, the independent company trod its own path by producing very small sedans, wagons, convertibles, and even sports cars. These little cars are unique and many well-known people such as Dwight Eisenhower, Frank Lloyd Wright, and Nelson Rockefeller were owners of Crosley cars.

The company was founded in 1939 and resumed production after World War II in

1949. But apparently there were not enough forgotten men (or women) to sustain the breed, and Crosley shut down in 1952 after producing only about 77,000 vehicles.

In the post-war period, station wagons had emerged as a growing market segment and Crosley produced the first Super Wagon in 1949. The stylish wagon could be ordered with two-toned





interiors, chrome trim and optional features - winning the hearts and frugal wallets of many cost-conscious middle-class suburbanites. Between 1949 and 1952, the Super Wagon was Crosley's top selling model.

The Specs...

- Weighs 1,305 pounds
- 80" wheelbase
- 44 cubic-inch inline four-cylinder engine
- Tillotson one-barrel carburetor
- 26.5 horsepower
- Sold for \$984 new

# 1952 Crosley Farm-O-Road (\*)

The Farm-O-Road was made by Crosley, a company that most of us know for their equally cute little cars, pickups, sports cars, station wagons, and of course their radios. The Farm-O-Road was made from 1950 to 1952 and look somewhat like a miniature version of the Willys MB (Jeep) used in World War II. While smaller in scale, the Farm-O-Road has Jeep-like features including a curved hood, side flanking rounded integrated fenders and vertical oval grille.

The Farm-O-Road had a mechanical traction aid in the form of a brake lever that operated as a parking brake on both wheels but could also be operated on each rear wheel individually.

The Farm-O-Road was not a sales success, being made for only a couple of years. It was, like





Crosley's cars, probably just too small to be taken seriously.

Total production for the Farm-O-Road is estimated at less than 600.

Crosley Motors declared bankruptcy in 1952, but Crosley's small utility vehicle was revived a decade later by the Crofton Marine Engine Co. of San Diego, California, as the Crofton Bug. Again, it saw limited production, with only 200 to 250 being sold

The Specs...

- Weighs 1,100 pounds
- 63" wheelbase
- 44.2 cubic-inch cast-iron overhead cam four-cylinder engine
- 26.5 horsepower
- Manual 3-speed Warner T-92 transmission
- Tillotson DY9B carburetor

# 1951 Daimler-Benz 170 Da

Although this special car was never actually appeared in the popular television sitcom Hogan's Heroes, it was very similar to the cars actually used in the show. which ran for seven years (1965-1971).

Colonel Klink is seen being driven to various locations in a Mercedes 260D staff car. Sometimes it is the standard version, while at other times it is the Pullman limousine version.

The 1951 Mercedes-Benz 170 Da (W136 VI D) was a diesel-powered passenger car produced by Daimler-Benz, significant for its role in post-World War II recovery and its contribution to popularizing diesel engines in passenger vehicles.

### **Overview**

- Production Period: 1950–1952
- Model Designation: 170 Da, internally coded as W136 VI D
- Type: Sedan, chassis for special-purpose bodies, ambulance, and delivery van variants

• Significance: The 170 Da was an evolution of the 170 D, introduced in 1949, and played a key role in making diesel passenger cars socially acceptable. It was economical, reliable, and well-suited for the resource-scarce post-war era, particularly due to the availability of diesel fuel compared to gasoline.









## **Technical Specifications:**

- Engine:
  - Type: OM 636 VI, 4-cylinder inline diesel with indirect injection (Vorkammereinspritzung)
  - Displacement: 1,767 cc (1.8 liters, tax classification 1,755 cc)
  - Bore x Stroke: 75 x 100 mm
  - Compression Ratio: 19:1
  - Power Output: 40 hp (29 kW) at 3,200 rpm

- Torque: 10.3 mkg (101 Nm) at 2,000 rpm
- Fuel System: Bosch 4-plunger injection pump

• Valve Arrangement: 1 intake, 1 exhaust (overhead), driven by a lateral camshaft via spur gears

• Note: The engine was an enlarged version of the 1.7-liter M136, upgraded in May 1950 for improved performance.

- Transmission:
  - Manual, 4-speed, column-mounted gear lever
- Chassis and Suspension:
  - Chassis: Oval-tube frame (W136 platform)
  - Front Suspension: Independent with double wishbones and coil springs
  - Rear Suspension: Swing axle with coil springs
  - Brakes: Hydraulic drum brakes, strengthened in 1950
  - Shock Absorbers: Telescopic, added in 1950 for improved safety
- Dimensions and Weight:
  - Length: Approximately 4,285 mm (sedan)
  - Width: 1,584 mm
  - Rear Track: Widened in 1950 for better stability
  - Weight: Varies by body type (sedan ~1,200–1,300 kg)
- Performance:
  - Top Speed: ~100 km/h (62 mph)
  - Acceleration: Modest, prioritized economy over speed
  - Fuel Consumption: Notably low for the era, a key selling point due to diesel efficiency
- Body Styles and Variants
  - Sedan: The primary configuration, a four-door saloon with improved comfort features like larger seats and a wider cabin (50 mm wider than earlier models).
  - Special-Purpose Chassis: Available for coachbuilders, used for:

• Ambulances: Built by Lueg in Bochum, officially sold by Daimler-Benz from December 1950.

• Box-Type Delivery Vans: Produced from 1951–1953, including Sindelfingen-bodied versions.

• Pick-Up Waterfalls: Platform trucks and estate cars, often locally assembled (e.g., South Africa's Morewear Industries for pick-ups).

• 170 D OTP (Offener Tourenwagen Polizei): A rare four-door cabriolet for police use (1951–1952), with a lightweight folding roof and

detachable side windows. Approximately 530 units were built for the German Federal Border Police, mostly painted blue despite a "Police Green" requirement. Featured an externally accessible trunk, a first for the 170 series.

• Pick-Up (South Africa): Chassis cabs were exported as semiknocked-down (SKD) units to South Africa, where Morewear Industries in Germiston fitted load boxes for use as commercial vehicles. These "half-cars" were popular among businessmen and farmers.

#### **Historical Context and Impact:**

• Post-War Role: Introduced at the 1949 Technical Export Fair in Hanover, the 170 Da was part of Daimler-Benz's post-war recovery. The diesel engine's fuel efficiency and reliability made it a hit, especially as gasoline was scarce. It was widely used as a taxi and for commercial purposes.

• Diesel Pioneer: The 170 Da built on the legacy of the 1936 Mercedes-Benz 260 D, making diesel passenger cars mainstream. Its success laid the groundwork for Mercedes-Benz's leadership in diesel technology. By 1953, 33,823 diesel 170 D variants were sold.

• Production Numbers: In 1949, Daimler-Benz produced 17,164 units (170 V, 170 D, 170 S combined), rising to 33,906 in 1950 and 38,350 in 1951, with the 170 D and Da being major contributors.

• Market Positioning: Priced at 9,850 DM for the sedan, it competed with luxury models like the Opel Kapitän, appealing to business owners and professionals.

• Legacy: The 170 Da's rugged design and diesel efficiency made it a symbol of resilience. Its platform (W136) was Mercedes-Benz's top seller until the 1953 introduction of the modern "Ponton" 180 (W120), which rendered the 170 series outdated.

**Collectability and Modern Appeal** 

• Rarity: Variants like the OTP and South African pick-ups are particularly rare and sought after by collectors, especially in markets like South Africa.

• Restoration Notes: Restored examples, like a 170 D OTP in the U.S., feature period-correct details (e.g., white-wall tires, vintage Mercedes-Benz hubcaps). Modern upgrades, such as additional gauges for oil pressure and water temperature, are common for reliability.

Market Value: Prices for 1951 170 Da models vary:

- Sedan: ~€47,890–109,000 (condition-dependent)
- Special variants (e.g., OTP, pick-up): Higher due to rarity
- Example: A 1951 170 S (petrol) sold for €139,000.

The 170 Da is celebrated for its role in Mercedes-Benz's post-war revival and its engineering simplicity, offering a tactile, vintage driving experience with the distinctive diesel clatter.

#### **Sources**

• Information compiled from automotive history archives, including Mercedes-Benz's public archive and enthusiast resources.

• Note: Some specifications (e.g., exact weight, fuel consumption) vary slightly across sources due to limited historical data and body type differences.

# 1934 DeSoto Airflow SE (\*)

The DeSoto Airflow is a fullsized automobile built by DeSoto during model years 1934, 1935 and 1936. DeSoto received the then-revolutionary Airflow model due to its price structure relationship to larger and more expensive Chrysler brand cars. The 1934 Airflow models are noted for their unique styling. They generate interest for their engineering innovations. It has a 115.5 in (2,934 mm) wheelbase.



The Desoto Airflow was a result of Chrysler Corporation policy of badge engineering, being mechanically substantially similar to the longer wheelbase, longer bodied Chrysler Airflow.

The Carl Breer designed Airflow was ahead of its time in terms of aerodynamics. The design was revolutionary for the 1930s. The design of the vehicle came about after many hours spent in wind tunnels. Orville Wright, an aviation expert, was called upon to help design a vehicle that achieved aerodynamic like an airplane. Lightweight, rigid materials were used to help complement the vehicle's design. A prototype called the Trifon Special was constructed in 1932. In 1934, the production model was completed and ready for sale as both Chrysler and DeSoto models.

DeSoto (and Chrysler) touted all of its Airflow bodies as "futuristic" in an age of streamlining, but the public found the cars to be too different in a time of economic uncertainty. While Chrysler's cars looked better, with the Airflow bodies stretched over their longer wheelbases, the shorter 115" wheelbase of the DeSoto made the cars seem bulky. Walter P. Chrysler, who had been a strong proponent of the Airflow project, was stunned by the lack of interest in the car, which he believed pointed the way for the future of American cars.

Interest in the Airflow was strong when it was introduced. Unfilled orders for it totaled 15,580 on April 30, 1934. This was 48.3% of comparable Chrysler and DeSoto shipments in 1933.

In May 1936 the DeSoto Airflow began to be promoted in some 435 newspapers in the United States. The highly streamlined car was advertised together with more traditional Airstream cars in general magazines and by itself in class magazines. The DeSoto advertising account was managed by J. Sterling Getchell.

Rumors persisted that the Airflow's body was unsafe. Tests showed its allsteel uni-body construction safer than those of other cars made at the time (most automotive manufacturers still used body on frame construction, with a stout metal chassis and partial wooden sub-framing over which steel skins were applied for their car bodies). In one widely distributed advertising film shown in movie theatres, an empty Airflow was pushed off a Pennsylvania cliff, falling over 110 feet (34 m); once righted, the car was driven off, battered, but recognizable. Still, the myth persisted that Airflows were unsafe.

While Chrysler still built a more familiar-looking car in 1934, DeSoto only offered the Airflow. Despite DeSoto selling more Airflows than Chrysler, Chrysler sold more cars overall with the majority being the redesign of the 1933 "regular" Chrysler.

For 1935 and 1936, Chrysler added the more traditional DeSoto Airstream, which it shared with Chrysler, and DeSoto regained a portion of its lost market share. While the Airflow was still offered, the bulk of DeSoto's sales were Airstreams and the Airflow was relegated to the back of the DeSoto catalog. Those buyers who did choose the Airflow found that their models carried a more prominent peaked grille design. Other than cosmetic changes (hood louvers, etc.) the cars remained unchanged. While Chrysler continued to use the Airflow body through 1937, Chrysler discontinued the DeSoto Airflow in 1936 and focused on the DeSoto Airstream so as to offer more traditional designs and the higher sales volume that they brought the division.

**Rick DeBruhl Commentary - No one wanted this car** 



#### Specs...

- 115.5-inch wheelbase
- Hydraulic brakes
- Inline 6-cylinder engine
- 122 horsepower with a top speed of about 88 miles per hour
- 3-speed manual gearbox
- 13,940 sold in 1934

# **1955 DeSoto Fireflite Sportsman (\*)**

The Fireflite was introduced in 1955 as De Soto's top trim package of the DeSoto Firedome. It was wider and longer than the Firedome and it came equipped with a hemispherical cylinder head, 291 cubic inch displacement (4.8L) V8 engine producing 200 hp when equipped with the 4-barrel carburetor (149 kW) and PowerFlite automatic transmission. The transmission was operated by a Flite-Control lever located on the dashboard. The car weighed 4,070 lb (1850 kg) and cost US\$3,544 (\$40,309 in 2023 dollars). AM radio was a \$110 option (\$1,251 in 2023 dollars). The 1956 model car was best known for its long, tapering tail fins, often accentuated by a two-tone exterior finish. The interior offered bench seating that could accommodate six passengers. The Fireflite had a 0 to 60 mph (97 km/h) acceleration time of 11 seconds and a top speed of 110 mph (175 km/h). The Fireflite's bold design increased sales for DeSoto. In 1955, DeSotos sold well with over 114,765 examples produced, making 1955 the best year for the company since 1946. By 1956, DeSoto placed eleventh in U.S. production with an annual production of 110,418 cars. The success was short-lived, however, and Chrysler Corporation







discontinued the Fireflite models at the end of the 1960 model year, and the DeSoto brand effective in November 1960.

Specs...

- 325 cubic-inch hemi engine
- 2-speed PowerFlite transmission
- 0 to 60 in 11 seconds
- Top speed of 110 miles per hour
- Weight is 4,070 pounds



## 1973 De Tomaso Pantera L (\*)

The De Tomaso Pantera is a mid-engine sports car produced by Italian automobile manufacturer De Tomaso from 1971 to 1993. Italian for panther, the Pantera was the automaker's most popular model. There were more than 7,000 manufactured over its 20-year production run, with 5,500 imported to the U.S. and sold through Lincoln Mercury dealers.

The Pantera was designed



by the Italian design firm Carrozzeria Ghia's American-born designer Tom Tjaarda and replaced the Mangusta. Unlike the Mangusta, which employed a steel backbone chassis, the Pantera's chassis was of a steel monocoque design, the first instance of De Tomaso using this construction technique.

The car debuted in Modena in March 1970 and was presented at the 1970 New York Motor Show a few weeks later. Approximately a year later the first production cars were sold, and production was increased to three per day. De Tomaso sold the rights to the Pantera to Ford, who were to distribute the cars in the United States through its Lincoln-Mercury dealerships, while Alejandro De Tomaso retained the rights to market the Pantera in Europe.

The "Lusso" - or luxury - Pantera L featured many factory upgrades and updates compared to previous models. In 1973, the De Tomaso Pantera was Road Test Magazine's Import Car of the Year beating offerings from Ferrari, Maserati, Lamborghini, and Porsche. Maximum speed is 159 miles per hour.

Ford stopped importing the Pantera to the US in 1975. De Tomaso continued to build the car in ever-escalating forms of performance and luxury for almost two decades for sale in the rest of the world. A small number of cars were imported to the US by gray market importers in the 1980s, notably Panter America and AmeriSport. After 1974, Ford discontinued the Cleveland 351 engine, but production continued in Australia until 1982. De



Tomaso started sourcing their engines from Australia once the American supplies stopped. These engines were tuned in Switzerland and were available with a range of outputs up to 360 PS (265 kW; 355 hp).

Specs...

- 8-cylinder, 351 cubic inch, 5.8 liter engine
- 330 horsepower
- 4-speed transmission
- 4-wheel disc brakes
- Monocoque frame
- 99-inch wheelbase

## 1981 DMC DeLorean (\*)

The DeLorean is a rear-engine twopassenger sports car. Ultimately the only car brought to market by the fledgling company. The DeLorean is sometimes referred to by its internal DMC pre-production designation, DMC-12. However, the DMC-12 name was never used in sales or marketing materials for the production model. Designed by Giorgetto Giugiaro and noted for its gullwing doors and brushed stainless-steel outer body panels, the sports car was also noted for a lack of power and performance not in harmony with its looks and price. Though its production was shortlived, the DeLorean became widely known after it was featured as the time machine in the Back to the *Future* films. . With the first production car completed on January 21, 1981, the design incorporated numerous minor revisions to the hood, wheels and interior before production ended in late December 1982, shortly after DMC filed for bankruptcy and after total production reached about 9,000 units.

Specs...

- Production: 1981 1982
- Assembly: Northern Ireland
- Layout: Rear Engine, Rear wheel drive
- Engine: 2.85L PRV ZMJ-159 V6
- Output Power: 130 hp, 153 ft lbs. torque
- Transmission: 5-speed manual or 3-speed automatic





## 2025 New DeLorean Alpha5





DELOREAN MOTOR CAR	S OF AMERICA or Company	PEDTO (DEALER NAME AND ADDRESS) hepard Chevrolet 30 Carriage Lane ake Bluff, IL 60044	
DOEL BODY TYPE		PORT OF ENTRY	METHOD OF TRANSPORTATION
LOREAN 2-D	DOR	BALTIMORE	TRUCK
ERICR VE	HICLE IDENTIFICATION NO.	ENGINE NO.	MODEL YEAR
			1982
	MANUFACTI	RERS SUGGESTED RETAIL PRICE '	
STANDARD FEATURES	MAROTACIO		\$28,650,00
Challen Charle Dark Deserts	REAR MOUNTED 174 CID OHC V6 ENGINE		STD
Stainless Steel Body Panels	5-SPEED MANUAL TRANSMISSION		STD
Counter Balanced	BOSCH K-JETRONIC FUEL INJECTION		STD
Gull-Wing Doors	POWER ASSISTED 4-W	HEEL DISC BRAKES	STD
4-Wheel Independent	AIR CONDITIONING		STD
Suspension	AM/FM STEREO RADIO	W/ CASSETTE	STD
Rack & Pinion Steering	ELECTRIC POWER ANT	ENNA	STD
Electronic Ignition System	POWER WINDOWS		STD
Rody Side Molding	CENTRAL DOOR LOCKING SYSTEM		STD
body side molding	MANUAL TILT & TELESCOPIC STEERING COLING		STD
Tinted Windows	DUAL FLECTRIC REMO	TE STOP VIEW MIRPORS	STD
<ul> <li>Intermittent Windshield</li> </ul>	CAST LICHT-ALLOY W	WEFT C	STD
Wipers	COONVEAD NOT STEEL BELTED PADIAL TIDES		CTD
Epoxy Coated Corrosion	ELECTRIC READ UIND	OU DEFICIER RADIAL TIRES	SID
Resistant Frame	DIGITAL CLOCK		SID
Dual Braking System	FI POTDIO TACUOMPTED		SID
Halogen Headlamos	ELECTRIC TACHOMETER		STD
Facile of upgage	BUSCH LAMBDA EMISSION CONTROL		STD
Compartment Liphts		ABCEC	6600.00
Compariment Eignis	U.S. PROCESSING CH	ANGES	\$600.00
Interior Hood & Engine	OPTIONAL FOULPWENT		
Compartment Herease	NONE		-
HIS LABEL HAS BEEN AFFIXED TO THI REQUIREMENTS OF 15 U.S.C. \$1231 E REMOVAL OR ALTERATION PRIOR TO	S VEHICLE PURSUANT TO THE T SEQ. WHICH PROHIBITS ITS DELIVERY TO THE ULTIMATE	DESTINATION CHARGES	\$575.00
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TWO SEATER	FROM 10 TO 29 MFG (AS OF SEPT. 30, 1981). BY COMPARISON, THE ESTIMATED MPG OF THIS MODEL IS 21. USE THESE NUMBERS TO COMPARE DIFFERENT MODELS. CONSULT THE GAS MILEAGE QUIDE FOR FURTHER INFORMATION.		
ANNUAL FUEL COST. \$1178 B ASK THE DEALER FOR THE FREE 198 HOW TO USE THESE NUMBERS.	ASED ON 21 MPG. 15.000 M 2 GAS MILEAGE GUIDE TO COMP	ILES PER YEAR \$1.65 /GALLON. THE ESTIMATED MPG OF OTHER CARS. IT	WILL TELL YOU



#### <u>Rick DeBruhl's Commentary - Collector Car Profile</u> 1981 DMC DeLorean



# 1914 Dodge Bros. Great Race Car (\*)

This 1914 Dodge Brothers car is 169 of 300 built in 1914 - the first year of Dodge. Dodge was the first mass produced car with all steel body. This car was restored by noted Lincoln K builder Jack Cassan of Oceanside, California.

Cassan drove this car from North Hollywood, California, to New York City in the 1985 Great American Race - now known as The Great Race. Cassan and his partner, Elliott Woodward of Seattle, Washington, were Grand Champions in 1985 and won \$100,000. Cassan donated all his winnings to charity. Again, driven by Cassan, this car also competed in the coast-to-coast race in 1988 and 1991. Ironically, Cassan died in an auto accident on his own property in 2008.

The Great Race is a classic rally for street-legal vintage automobiles at least 45 years old. Vehicles must use original factory parts, and modern navigational aids like GPS are prohibited. This is a precision pace race, not a high-speed race.

Points are awarded on the accuracy of a driver and navigator to match a time and average speed over a predetermined course. Points are also





awarded on a handicap system that awards bonus points to older vehicles. Prizes are awarded in several categories, including the "X-Cup" for high school teams.

Our founder and Chairman Mel Martin also drove in the Great American Race in 1994, 1996, 1997 and 1999.

#### Specs...

- Original motor rebuilt
- Borg-Warner overdrive transmission and Warner gauges
- 3 radiators with electric fans
- 35-gallon fuel tank
- Speeds up to 75 miles-per-hour
- Cadillac 90-degree V-8 engine
- 3-speed Syncro-Mesh transmission
- Build date was 5/1/1930
- Shipped to Glacier Park, Montana c/o Hall Cadillac, Denver

# 1924 Dodge Screen Bed Truck (\*)

This rare screen-side truck was built by the Dodge Brothers, then shipped to the Graham brothers for final body attachments which include the screen sides seen today. This truck was used to haul just about anything although primarily produce. The screen sides on this truck would allow the cargo to be aired out as it was hauled to the destination.

The 1924 Dodge screen bed truck is a classic light-duty commercial

vehicle produced by Dodge Brothers, known for its robust design and practicality.

By 1924, Dodge Brothers was a well-established automobile manufacturer, known for building durable vehicles. The company entered the light truck market in the 1910s to address the growing demand for commercial vehicles in the U.S. The screen bed truck was designed primarily for businesses that needed a lightweight yet sturdy vehicle for hauling goods. Its "screen bed" design made it suitable for transporting items like produce, livestock, or other light loads that benefited from ventilation. Dodge trucks were favored for their reliability and toughness, gaining popularity among small

business owners and farmers. Transition Period: 1924 marked one of the final years of Dodge Brothers' independent operations before Chrysler Corporation acquired the company in 1928.

The 1924 Dodge screen bed truck is a reflection of the automotive industry's focus on practical, work-oriented vehicles during the early 20th century. It set a precedent for Dodge's commitment to producing reliable commercial trucks, a legacy that continues to this day. Built in May 1924 the factory price was \$910, 1 of 9,834 produced and is 1 of only 7 remaining.





#### Specs...

- Engine:
  - Type: Inline 4-cylinder engine.
  - Displacement: 212 cubic inches (3.5 liters).
  - Power Output: Approximately 35 horsepower.
  - Cooling: Water-cooled.
- Transmission:
  - Type: 3-speed manual transmission.
  - Clutch: Single-plate dry clutch.
- Chassis and Suspension:
  - Chassis: Steel ladder-frame design.
  - Suspension: Semi-elliptical leaf springs front and rear.
  - Wheelbase: Approximately 114 inches, depending on the specific model.
- Body Style:
  - The "screen bed" was a wooden flatbed with wire mesh or slatted sides to allow ventilation. This design was particularly useful for transporting perishable goods or livestock.
  - The cab was open or enclosed, typically made from a combination of steel and wood.
  - Truck: <sup>3</sup>/<sub>4</sub> ton
- Brakes:
  - Type: Mechanical drum brakes on rear wheels (front brakes were uncommon at the time).
- Weight and Capacity:
  - Curb Weight: Weight is 2,847 pounds lbs. (varied by configuration).
  - Payload Capacity: Approximately 1 ton (2,000 lbs.).
- Wheels and Tires:
  - Wheels: Wooden or steel-spoked wheels.
  - Tires: Solid rubber or pneumatic tires (depending on customer preference).
- Fuel System:
  - Fuel Tank: Located under the seat or on the frame, with a capacity of about 15 gallons.
  - Fuel economy was approximately 10-15 miles per gallon.
- Top Speed:
- Around 35-40 mph, suitable for the era's roads and usage.

#### Revision May 20, 2025 rev U 1957 Dodge C100 Step-side Custom Pickup Truck (\*)

The C series is a line of pickup trucks sold by Dodge from 1954 to 1960. It replaced the Dodge B series of trucks and was eventually supplanted by the Dodge D series, introduced in 1961. Unlike the B series, which were closely related to Dodge's pre-war trucks, the C series was a complete redesign. Dodge continued the "pilot house" tradition of high-visibility cabs with a wraparound windshield introduced in 1955.

In 1957, Dodge offered two body styles for the C series pickup trucks - the stepside and sleeker sweptside (pictured to the middle right), which had rear fins like many of the cars of that era.

Starting in the 1957 model year, factory four-wheel-drive versions of the Dodge C series trucks were produced and sold as the W-100, W-200, W-300, and W-500, alongside the older WDX/WM-300 "Military Style" Power Wagon. The latter had the "Power Wagon" badge on the fender (pictured bottom right). The heavy-duty four-wheel-drive W-300 and W-500 trucks were marketed as "Power Giants". Chrysler called



the Hemi-powered Dodge trucks "Power Giant" in 1957, and introduced power steering and brakes, a three-speed automatic, and a 12-volt electrical system.

This is a customized C100 Stepside on loan to the museum (pictured top right). It is owned by museum staffer Jeff Gibson, who customized the truck and used it for his prior business enterprise - Guarantee Auto Center.

Specs...

- 5.8-liter V-8 engine
- 300 horsepower (estimated)
- 3-speed automatic transmission
- 4-wheel disc brakes
- Power steering and power brakes

**Original Specs and options:** 

- Engine: 230 ci inline 6, 315 ci V8, 318 ci V8, or 331 ci V8
- Transmission: 3-speed automatic or 2-speed PowerFlite automatic
- Wheelbase: 108 in. or 116 in.

## **1965 Dodge Coronet Hemi (\*)** From the Alexander Orzechowski Collection

The Dodge Coronet is an automobile that was marketed by Dodge in seven generations, and shared nameplates with the same bodyshell with varying levels of equipment installed. Introduced as a fullsize car in 1949, it was the division's highest trim line and moved to the lowest level starting in 1955 through 1959.

The Coronet reappeared for the 1965 model year as the intermediate-sized B-body using



a 117-inch wheelbase - continuing what had been the Dodge Polara.

For 1965, Dodge sold slightly over 209,000 units, making the Coronet the most popular model sold by Dodge that year. Trim levels initially were base Coronet including a Deluxe version, Coronet 440, and Coronet 500.

The middle of the Coronet line-up was the 440 which was available as a two-door hardtop, convertible, or station wagon. The 440 designations did not indicate engine displacement as commonly assumed - the nomenclature was a carryover theme from the 1963-64 Polara series. About 87,500 Coronet 440 models were sold in 1965 and included as standard, a V-8 engine (273 cubic inches), exterior trim and badging, bucket seats, padded dash, and chrome floor console. The basic price for the 1965 Coronet 440 was \$2,345. Dodge produced only 200

Coronet 440s with a 426 cubic-inch Hemi V-8 engine, making this a very rare car.

This Coronet was restored and customized by local car collector Alexander "Ski" Orzechowski. Improvements include custom interior, custom wheels and tires, and more.

The Specs...

- 426 cubic-inch Hemi V-8 engine
- 425 horsepower
- Carter AFB 4-barrel carburetor
- 4-speed manual transmission
- 117-inch wheelbase

#### Revision May 20, 2025 rev U 1965 Dodge Coronet A/FX Kentucky Colonels (\*)

Things were not funny in 1965, at least not to Ford racing management, who called foul when Chrysler engineers went "big" with radical wheelbase changes. The car offered here is one of a handful to survive that era when Super Stock changed "FX" into what the Ford guys derisively called "funny cars." This vehicle is one of the 101 examples built for Super Stock that year, coming off the assembly line at Lynch Road on January 13, 1965. As a code-W051 race package, the car was sent to Western Dodge Sales and Service in Owensboro, Kentucky, on January 25, 1965. Affectionately considered the seventh 1965 A/FX Dodge and the 13th A/FX Mopar—12 were created directly by Chrysler engineers and a subcontractor named **Amblewagon—the Kentucky Colonels Dodge showcases the** wheelbase and engine changes that made history, along with the special factory-designed fiberglass fenders, hood with large scoop, bumpers and



decklid. Previously on display at the Floyd Garrett Muscle Car Museum, the car has received an extensive restoration to its as-raced configuration, and it retains the legendary outrageousness of the "ultra-stock" revolution. Lift off the hood and find an authentic 426 Hemi race block—dated December 1964—with the A990-correct factory Alcoa-marked aluminum heads, high-dome pistons, Prestolite transistor ignition including the distributor, and Hilborn tall-stack injection. These special engines were designed originally to remove weight for Super Stock and were never again released by the factory in a package car. A forged-steel crankshaft and Crane camshaft are here, but most importantly this car has a set of ultra-rare original S&S A/FX

headers. Behind this behemoth of power is a reworked Art Carr raceprepped TorqueFlite transmission with an A990 stall converter and a 4.56:1geared rear end. Inside are lightweight seats, heater and radio delete, a well-designed roll cage and a period-correct Hurst dual-gate shifter. With fit and finish better than new, a Chrysler Registry report and painted-on race lettering, this A990 Dodge with its "one step beyond" race modifications will be eye-opening to the knowledgeable and curious alike.

#### HIGHLIGHTS

This car was Built January 13, 1965 at the Lynch Road assembly plant as a 426 Hemi Coronet W051 Coronet Super Stock. Shipped to Western Dodge Sales and Service in Owensboro, Kentucky on January 25, 1965 along with fiberglass fenders, hood, bumpers and deck lid. It wast he 7th 1965 A/FX Dodge and the 13th A/FX Mopar. Previously on display at the Floyd Garrett Muscle Car Museum. Extensive restoration to as-raced configuration. Factory Alcoa-marked aluminum heads, High dome pistons, Transistor ignition, Forged steel crankshaft, Hilborn injection, Crane camshaft, Original S&S A/FX headers, Original Prestolite distributor, Aluminum racing oil pan, Art Carr race-prepped Torqueflite transmission, Original A990 stall converter, 4.56 geared rear end, Radio and heater delete, Extensive Chrysler Registry inspection report

Specs...

- ENGINE: 426CI, Hemi race block, dated December 1964
- TRANSMISSION: Automatic
- EXTERIOR COLOR: Silver/Blue
- INTERIOR COLOR: Beige
- MAKE: Dodge
- MODEL: Coronet A/FX
- VIN / SERIAL: W051197574



YouTube Video on 1965 Dodge Coronet A/FX Kentucky Colonels

# 2008 Dodge Challenger SRT8 (\*)

On December 3, 2007, Chrysler started taking deposits for the 3rd-generation Dodge Challenger which debuted on February 6, 2008, simultaneously at the Chicago Auto Show and Philadelphia International Auto Show. Listing at US\$40,095, the new version was a 2door notchback coupe (seating 5 passengers with over 33 cubic feet (930 L) of rear passenger volume) which shared common design elements with the first-generation Challenger, despite being significantly longer and taller. As with Chevrolet's new Camaro, the **Challenger concept** car's pillarless hardtop body was replaced with a fixed "B" pillar, hidden behind the side glass to give an illusion of the hardtop. A convertible version was planned, but cancelled over concerns with weight and a low market demand for convertibles. The LC chassis is a modified (shortened wheelbase) version of the LX platform that underpins the Dodge Charger (LX), Dodge Magnum, and the Chrysler 300. The LX was developed in America from the previous Chrysler LH platform, which had been designed to allow it to





be easily upgraded to rear and all-wheel drive. Many Mercedes components were incorporated, or used for inspiration, including the Mercedes-Benz W220 S-class control arm front suspension, the Mercedes-Benz W211 E-Class 5-link rear suspension, the W5A580 5-speed automatic, the rear differential, and the ESP system. All (7119) 2008 models were SRT8s and equipped with the 6.1 L (370 cu in) Hemi V8 engine and a 5-speed AutoStick automatic transmission. The entire 2008 Canadian produced run of 6,400 US market cars were pre-sold and production commenced on May 8, 2008.

Chrysler of Mexico offered only 100 SRT8s, with a 6.1-liter V8 engine rated at 425 horsepower (317 kW; 431 PS) (SAE). Chrysler auctioned off two 2008 SRT8s for charity with the first car going for US\$400,000 and a "B5" Blue No.43 car with a winning bid of US\$228,143.43.

The only Dodge Challenger model made in 2008 was the SRT8. Each of the 6,400 Challenger SRT8s made in the U.S. that year came with a numbered plaque, orange seat stripes, and faux-carbon-fiber hood stripes.

This Challenger SRT8 is highly customized. Notably, it has high performance equipment that boosts the stock 425 horsepower to more than 700 horsepower. It has carbon fiber throughout, including the wheels, making it lighter and faster. For safety, it has a roll bar and racing seats with fourpoint seat belts. It even has a custom stereo system (so you can blast your favorite music while screaming down the drag strip).

The base price of the 2008 SR8 was \$37,995. This rare muscle car has approximately \$70,000 worth of upgrades.

Specs...

- 6.1-liter Hemi overhead valve V8 engine
- 425 horsepower stock; aftermarket equipment boosts > 700 horsepower
- Base price of \$37,995

### 2016 Dodge Charger SRT Hellcat (\*) "Beloved Memory of Bobby Martin will be with us all the way to the finish line."

This car is particularly significant to our founder and Chairman Mel Martin because it belonged to his late son Bobby Martin, who, before he passed, requested that the car be displayed in the museum. Bobby loved this car and enjoyed sharing it with others.

At more than 700 horsepower, this 2016 Dodge Charger SRT Hellcat is the embodiment of the modern "muscle car". The Dodge Charger has been a hit with consumers ever since the latest generation debuted back for the 2008-2009 model years.

But while the muscle car styling and menu of powerful engines are of obvious appeal, what you might not realize is how practical the Charger is for the average buyer. Unlike other similar cars, adults can comfortably fit in the backseat, and it has a trunk equivalent to those in many full-size sedans. Reviews note the car's ride quality is comfortable, and the features list is packed full of convenience, entertainment, and high-tech safety items

Specs...

- 6.2-liter supercharged V-8 engine
- 707 horsepower
- 8-speed automatic transmission
- 116.2-inch wheelbase
- Original price of about \$65,500





Bobby's fingers prints were on two other cars in the museum, one was this beautiful little 1934 Plymouth custom street rod that he had also donated to the museum. Plus, Bobby worked on the pit crew for the #51 Sprint car at Manzanita Speedway. As you walk around the museum you should stop and take a look at them. Bobby was a one-time owner of the Manzanita Speedway.





## 1917 Douglas Ore Dump Truck (\*) Who has 2 of these... we do!

Originally known as the Drumond Motor Car Company when founded in 1917, the Douglas Motors plant was in Omaha, Nebraska. They manufactured commercial trucks until the mid-1930s.

This and another identical Douglas dump truck were shipped from Omaha to Mayer, Arizona, for use at the Onyx mines. The trucks hauled ore from the mines to the shipping station. Each had a manual balanced weight dump bed.

Our founder and Chairman Mel Martin owns both of those trucks today. He used this truck in many local parades (as shown in photo on adjacent stand).

Specs...

- Buda inline 4-cylinder engine
- 47 horsepower
- 4-speed manual transmission
- Mechanical rear brakes only









## 1917 Douglas Ore Dump Truck (2) "Where it all began!"

This Douglas dump truck was shipped from Omaha to Mayer, Arizona, for use at the Onyx mines. The trucks hauled ore from the mines to the shipping station. Each had a manual balanced weight dump bed.

Originally known as the Drumond Motor Car Company founded in 1906 ending in 1918, the Douglas Motors was founded in 1918 with production in Omaha, Nebraska.



They manufactured commercial trucks until the mid-1935.

Our founder and Chairman Mel Martin was given this truck by his uncle when he was 16. This was the beginning of his unwavering love with vehicles. He has used this truck in many local parades.



Over the years Mel's love of the automobile grew quite a very large collection. Today this collection, that started with this 1917 Ore Truck, resides in his 107,000 square foot incredible museum. It offers a unique experience that no other museum offers.

Mel's passion began when he was very young, today he encourages our youth to experience that same desire and

excitement that he has enjoyed for so many years.

Specs...

- Engine: Buda inline 4-cylinder engine, 47 horsepower
- 4-speed manual transmission
- Mechanical rear brakes only



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## **1930 Duesenberg Model J Torpedo Boattail Speedster (\*)** This car was once owned by John Factor aka Jake "the Barber" Factor.

Duesenberg set out to build a car that would compete with the most powerful and luxurious cars of Europe. Known as the Model J, this car represented the finest in American craftsmanship, engineering, and elegance. When it was unveiled at the New York Auto Show on December 1, 1928, the introduction of the Model J was such an important event that trading was halted on the New York Stock Exchange. It was not only the most expensive car in America, it was also the fastest and the most technologically advanced car available.

The Model J instantly became a status symbol among the wealthy and famous. Gary Cooper, Al Capone, Jake "The Barber" Factor, Clark Gable, Greta Garbo, Howard Hughes, and Mae West were some of the famous Duesenberg owners.





The most infamous person to own this Duesenberg was John Factor, a Prohibition-era gangster and con artist affiliated with the "Chicago Outfit" and Al Capone. Known as Jake the Barber, he later became a prominent businessman and owner of the Stardust Resort and Casino in Las Vegas. Weeks after his staged kidnapping, John Factor turned up, claiming to have escaped from the kidnappers.

More recently, this car underwent a four-year restoration by Kevin and Jason Marsh of Utah. Utilizing a combination of original and reproduction components, top Duesenberg experts assisted in the recreation of this elegant car. This Duesenberg has been driven only 75 miles since restoration.

### The Specs...

- Production 1928 to 1937
- Assembly: Indianapolis, Indiana
- Produced: 481 model J & 36 Model SJ
- Designer: Gordon Buehrig
- Serial Number: J-249
- Engine: 7L 420 ci straight-8
- 320 horsepower (supercharged)
- 3-speed transmission
- Top speed of 135 mph

Read more on John Factor here





Read more on the Duesenberg Model J here:





## Lou Costabile My Car Story - Duesenberg



At a height of 5 foot 4 inches, John Factor may have been small in stature, but he was a man who lived large. The son of a Jewish Rabbi, and halfbrother to cosmetic giant Max Factor, John made a fortune during the height of the "Roaring 20's". When Duesenberg introduced their Model J in 1928, it was hailed as the finest motorcar in the world. Factor had to own a Duesenberg!

In 1929 he purchased J-143, a stylish Murphy bodied Convertible Coupe. Walter Murphy Coachbuilders were located in Pasadena California, and were well respected as one of the worlds more stylish builders of custom bodied automobiles. According to the Auburn, Cord Duesenberg Newsletter No. 9 1977, Factor, returned J-143 to the Duesenberg factory just a few months after its purchase. It was used as a down payment on J-249.

J-249 was one of only five short wheelbase Torpedo Roadsters, built by Murphy Coachbuilders. It featured a stylish disappearing top, and a shortraked back windshield. Factor must have been impressed with the unique Boat Tail design of the rear deck, and the highly polished aluminum, accenting the top of the hood, doors and upper rear deck. It was far and away more dramatic in appearance than the convertible coupe.

What would inspire a man of means to own such an automobile? A thorough look into John Factor may reveal his motives.

You see John Factor was one of the most charismatic and elusive criminals in American history. John was also known as Jake "The Barber" Factor. He was one of the most successful conmen in the history of American criminal justice. For four years, ending in 1928, Factor, sold stock in a non-existent Diamond mine in South Africa, he garnered more than £5 million. His victim list read like a who's who of English society, including several members of the Royal Family and the chief of Scotland Yard.

Barber, a master manipulator was one of Chicago's most colorful characters. A Public Relations genius he was good at securing favorable press for both himself and Al Capone. The press touted the two as good Samaritans, reporting stories of Factor passing out food packages to the poor from his Duesenberg, and Capone as supplying food for the soup kitchens. By 1933, the heat was on Factor, the courts granted an extradition order to return him to the U.K. to face charges for his stock scam.

Conspiring with Capone, later in 1933, Jake staged his own kidnapping. Barber was leaving the Capone owned and boisterous Dell Roadhouse near Morton Grove, Illinois. Jake was driving his Duesenberg home; he was forced off the road by a band of six heavily armed thugs (who later turned out to be on his own payroll). The men yanked Factor out of the car, and made off with him. As a result of the staged kidnapping, Jake was unable to make his next deportation hearing.

Weeks after his staged kidnapping, John Factor turned up, claiming to have escaped from the kidnappers. Factor implicated Roger Touhy a competitor of Al Capone, in the kidnapping; Touhy was falsely convicted and sentenced to 99 years in prison. After further investigation by the FBI, on November 13, 1959, Touhy was granted parole. He left Stateville Prison on November 24, 1959—exactly 25 years and nine months to the day after his incarceration. On December 16, 1959, just 23 days after his release from prison, Roger Touhy and his bodyguard were gunned down by mob hit men. While being rushed to the hospital, Touhy told a newsman, "I've been expecting it. The bastards never forget!" Touhy was taken to St. Anne's Hospital, where he lived for an hour before dying of shock and loss of blood.

Factor later became the front man for Chicago at The Stardust Casino, after its creator, Los Angeles gambler and crime figure Tony Cornero, died in 1955. On December 3, 1962, when Factor was finally about to be deported back to England, he was given a Presidential pardon by John F. Kennedy. In exchange, Jake gave Kennedy \$25,000 in cash to help fund the Bay of Pigs fiasco. He sold the Stardust Casino for \$14 million and then claimed bankruptcy.

Jake spent the last twenty years of his life as a benefactor to California's black ghettos. He spent millions of dollars building churches, gyms, parks and low-cost housing in poverty stricken black ghettos. When John Factor died, three U.S. senators, the mayor of Los Angeles and several hundred African-Americans attended his funeral.

What were John Factors reasons for owning a Duesenberg? Was it status? Was it "keeping up with the Capones"? Or outrunning his enemies or the law? We may never know. It has been reported, that years later, Factor reminisced fondly of his exploits driving his Duesenberg. The opportunity to own and drive the finest automobile of the Coach built Era, still compels collectors worldwide today. Simply stated, "It's a Duesy"

Records indicate that J-249 was registered in London England by the Honorable John Douglas Berry, on June 23, 1937. Photographs show it at Brooklands Racetrack in 1937. Surviving the Battle of Britain, and making it unscathed to the end of World War II, it changed hands several times through dealers throughout England. Sold March 4, 1946 to Osmond Philip Raphael, 57b, Hatton Garden, London E.C. Later address Raphael's Ltd., 6 Charlton Kings Road, London NW5. Last taxed Dec. 2, 1949 and then went to breakers (salvage yard), Birmingham.

1950 Engine and panel gauges went to John Morris of SU Carburetors.

In 1952 engine and gauges went to Brian Morgan, 22 Devonshire Rd., Birmingham Engine later installed in Bentley. The Bentley eventually came to America, Leo Gephart located and purchased the original Bentley's engine and exchanged it for J-249. The now loose engine was purchased by George Walther of Dayton Ohio. Walther was in the process of restoring a Murphy Convertible Sedan, using engine J-249, when he passed away. The far from completed project was purchased by Richard Losee, of Provo, Utah.

Upon discovering J-249's unique origins, the rarity of the Murphy Torpedo Roadster body style, and with a strong desire to return a "lost" Duesenberg to the world. The decision was made to re-create J-249 as originally produced "in the day".

Locating a chassis in Pennsylvania, and with the original block for J-249, fit into the frame, work began in earnest.

Mechanically, the engine received a complete rebuild. Much stronger than original, modern Carrillo H-beam connecting rods were used as well as Arias racing pistons.

J-249 stamped on the crankshaft; the original connecting rods use modern insert bearings.

The cylinder head received hardened seats and modern valves, while the camshafts were ground with a slightly higher profile.

As was common during the era, the supercharger was installed to increase performance from 265 HP to 320HP. The engine runs strong and powerful.

The original Hi-Flex transmission received a complete rebuild using new gears and bearings.

With the help of two factory photographs supplied by Jon Bill, the Archivist of the Auburn Cord Duesenberg Museum, and detail photographs of the original Torpedo Roadster also on display at the Museum, the body was faithfully re-created as originally produced.

Using the same procedures as early coach builders, hardwood was used to construct the framework for the aluminum skin.

To determine the correct dimensions of the body panels of the original car, using the photographs of the original body, we knew the wheels size was 19".

All body dimensions were scaled from that reference, and drawings were produced as guides to replicate the body perfectly.

Upper cowl panel formed with body reveal in place. Blue protective vinyl remains on aluminum.

All body panels formed with .060 3005 H-15 aluminum.

Forward section of panel welded to upper panel.

Hinges were fabricated using pictures of an original Murphy Torpedo Roadster at the ACD Museum.

Murphy used four door hinges because of the weight of the completed door.

With the amount of work required to fabricate the body, hood panels and modify the fenders, a total fit up was necessary to verify everything fit and looked correct.

We located four original fenders.

To keep up with styling trends of the mid-thirties, Duesenberg began adding skirts to their "Clamshell" fenders. These had to be removed! An abundance of lead was used over the seams. New beaded edge being formed and fit onto fender

Duesenberg designed the instrument panel to be freestanding supported by strong braces mounted to the firewall.

The lights on the far ends of the dash remind the owner to check the battery, change engine oil, fill the chassis lubrication reservoir, and when the chassis is being lubricated.

Wherever possible, original Duesenberg parts were located and restored as necessary. Original parts were literally found all over the world; gauges came from the UK and Canada, original Duesenberg fenders from Arizona, it required four years to locate two original Stromberg wiper motors. Reproduction parts include the correct style honeycomb radiator core from New Zealand and the correctly stamped frame from Pennsylvania

Upper dash and door rails finish off the cockpit, with the spring-loaded flappers over the door glass. Gold engine turned dash panel and white face

gauges accent the overall beauty of the vehicle. Dual Stewart Warner wiper motors required 4 years to locate.

The body line was formed into the aluminum body panels using a specially made combination roller. The pattern was taken from an original car.

Inlayed door panels of cherry and tiger maple, accent the red and cream color scheme. Door panels are framed with custom fabricated trim strips.

Specially fabricated rings trim the shift and emergency brake boots, tastefully trimming the carpeting.

Vent screen frames were laser cut and fit with stainless steel mesh.

The beautifully polished upper panel flows into the windshield frame equipped with wing windows that pivot to deflect airflow from the passenger compartment.

Outside rearview mirrors mount to the side wall covers.

Cowl band forms to meet the reveal of the body, and are fit with integrated cowl lamps.

Appearance and performance options include; dual updraft style supercharger, new old stock Marshall Merks external exhaust with stainless conduit covers, fully covered side mount spare tires with rear view mirrors, dual trumpet horns, wing windows, and finally, dual Pilot Ray driving lights that turn with the steering.

To our knowledge, J-249 was the only Duesenberg ordered with a front bumper installed on the rear of the car, this detail was also faithfully included in the restoration.

This magnificent Duesenberg received a painstaking restoration by Kevin and Jason Marsh of Salt City Specialties, Utah. No effort was spared to assure concourse quality attention to detail and correctness. This splendid automobile and restoration superbly reflect the power and beauty that is Duesenberg.

# 2001 Ferrari 360 Spider (\*)

Ferrari partnered with Alcoa to produce an entirely new all-aluminum space-frame chassis that was 40% stiffer than its predecessor's which had utilized steel. The design was 28% lighter despite a 10% increase in overall dimensions. Along with a lightweight frame the new Pinin farina body styling deviated from traditions of the previous decade's sharp angles and flip-up headlights. The new V8 engine utilizes a 3.6-litre capacity, a flat-plane crankshaft, and titanium connecting rods. The engine generates a power output of 400 PS (294 kW; 395 hp). According to Ferrari, weight was reduced by 60 kg (130 lb.) and the 0 to 100 km/h (62 mph) acceleration time improved from 4.7 to 4.5 seconds.

The first model to be produced was the 360 Modena, followed later by the 360



Spider and a special edition, the Challenge Stradale. The Challenge Stradale was the high-performance road-legal version of the 360 produced by the factory, featuring carbon ceramic brakes (from the Enzo), track-tuned suspension, aerodynamic gains, weight reduction, power improvements and revised gearbox software among its track-focused brief. There were 8,800 Modenas and 7,565 Spiders produced worldwide. There were 4,199 built for the US market—1,810 Modenas (coupes) and 2,389 Spiders (convertibles). Of those numbers, there were only 469 Modenas and 670 Spiders that were produced with a gated 6-speed manual transmission as opposed to the "F1" single-clutch automated manual transmission.

In addition to this were the low-volume factory race cars and a one-off Barchetta variant. The race cars were all derived from the 360 Modena and for the first time produced as a separate model in their own right (compared to being a retrofit kit in previous years). While the Barchetta was based on the Spider variant. The first race car was the 360 Modena Challenge, used in a one-make series; the factory-built racing cars were prepared by the official tuner, Michelotto, who also developed the 360 N-GT. The N-GT was a

360 Challenge car evolved even further to compete in the FIA N-GT racing class alongside other marques such as Porsche.

The Ferrari 360 Spider was unveiled at the 2000 Geneva Motor Show.

The 360 was designed with a convertible variant in mind; since removing the roof of a coupe reduces the torsional rigidity, the 360 was built for strength in other areas. Ferrari designers strengthened the sills, stiffened the front of the floorpan and redesigned the windscreen frame. The rear bulkhead had to be stiffened to cut out engine noise from the cabin. The convertible's necessary dynamic rigidity is provided by additional side reinforcements and a cross brace in front of the engine. Passenger safety is ensured by a strengthened windscreen frame and roll bars.

The 360 Spider displays a curvilinear waistline. The fairings imply the start of a roof, and stable roll bars are embedded in these elevations. Due to use of light aluminum construction throughout, the Spider weighs in only 60 kg (130 lb.) heavier than the coupé.

As with the Modena version, its 3.6 L (3,586 cc) V8 generating a power output of 400 PS (294 kW; 395 hp) is on display under a glass engine cover. The engine — confined in space by the convertible's top's storage area acquires additional air supply through especially large side air intakes. The intake manifolds were moved towards the center of the engine between the air supply conduits in the Spider's engine compartment, as opposed to lying apart as with the Modena. In terms of performance, the 0-97 km/h (60 mph) acceleration time was slightly slower due to the slight weight increase, and the top speed was reduced.

Despite the car's mid-mounted V8 engine, the electrically operated top is able to stow into the compartment when not in use. The convertible top was available in black, blue, grey and beige colors.

## Specifications (Modena and Spider)

## \$169,835 msrp in 2001 (equal to \$295,932 in 2024)

## **Dimensions**

- Overall length: 176.3 in
- Overall width 75.7 in
- Height: 48.6 in
- Wheelbase: 102.4 in
- Front track: 65.7 in
- Rear track: 63.7 in
- Weight: 2,976 lb.

- Curb weight: 3,424 lb.
- Weight distribution: 42/58% front/rear
- Fuel capacity: 25 US gal

## Engine

- The Tipo F131 V8 engine
- Type: 90° V8 F1310-00
- Bore & stroke: 3.35 in × 3.11 in
- Total displacement: 218.8 cu in
- Redline: 8,500 rpm
- Maximum power: 400 PS (294 kW; 395 hp) at 8,500 rpm
- Maximum torque: 275 lb-ft at 4,750 rpm

## Performance

- Top speed: Redline limited 175 mph / Manufacturer claim 183 mph
- Acceleration:
  - 0-60 km/h (37 mph): 2.47 seconds
  - 0-97 km/h (60 mph): 4.6 seconds
  - 0-100 km/h (62 mph): 4.98 seconds
  - 0-120 km/h (74.5 mph): 6.79 seconds
  - 0-160 km/h (100 mph): 11.1 seconds / 11.7 seconds
  - 0-210 km/h (130 mph): 21.9 seconds
  - Standing 1/4 mile (402 mph): 13.1–13.2 seconds at 106–110 mph
  - Standing kilometer: 23.74 seconds
  - Braking: 70 mph 0 mph: 165–175 ft
  - Speed through 600 ft slalom: 69.0 mph

## **EPA fuel economy**

- City: 10 mpg
- High way: 15 mpg
- Combined: 11 mpg
- Est. range:
- City: 250 mi
- High way: 375 mi

## Stone Age - Flintmobile



Fred Flintstone's car, often referred to as the Flintmobile, is one of the most iconic vehicles in animation history. Built from simple prehistoric materials: wood, stone, and animal hides, it was a perfect example of Stone Age engineering. Though it lacked an actual engine, it ran purely on "foot power," with Fred and sometimes his passengers using their feet to propel it forward.

Fred's Flintmobile was a hand-me-down from his father, a tradition in the Flintstone family. Built from the finest quarry-sourced limestone, the frame was reinforced with thick tree trunks, while

the canopy was made from a durable, stitched-together animal hide. The car's iconic front roller, a massive stone cylinder, allowed for smooth movement across Bedrock's rocky terrain, while its log axle system ensured a steady ride, despite the occasional prehistoric pothole.

Fred's car wasn't just for work commutes to Slate Rock and Gravel Company, it was the centerpiece of the Flintstone family's adventures. Whether taking Wilma and Pebbles on a Sunday drive, racing Barney Rubble in a friendly neighborhood contest, or getting caught up in one of his many money-making schemes, the Flintmobile was always by his side.

One of the car's most famous features was its emergency braking system: Fred slamming his feet onto the ground to bring it to a screeching halt. Though not the most efficient way to stop, it was a reliable (if not painful) method.







The Flintmobile had its fair share of trouble, too. From losing wheels middrive to getting flipped by a rampaging dinosaur, Fred often had to take it to the local repair shop run by a pterodactyl who doubled as a mechanic and a jack. Despite these challenges, the car always found its way back onto the rocky roads of Bedrock.

Yabba-dabba-doo!

Flintstone intro and ending on YouTube video



## 1914 Ford Model T Racer (\*)

Throughout history, humans have always sought speed - whether on a horse, auto or other transport. Auto manufacturers and owners have continually looked for ways to make cars go faster and faster. While modifications to gain speed were fairly limited during the early 1900's, shedding weight was the most common alteration used to increase an automobile's speed. This

"Barebones" Model T Racer is a great example of this concept. More than 200,000 Model T's were built in 1914 and sold for about







## Specs...

- 4-cylinder engine
- 40 horsepower
- Rajo overhead valve cylinder head
- Bosch magneto
- Exhaust headers
- Burns intake manifold
- Stromberg carburetor
- Frame shortened 11 inches
- Ross steering gear
- Rocky Mountain rear brakes
- Ruxtell 2-speed rear axle
- Hoak wire wheels
- Two bucket seats, one for the driver and the other for the mechanic
- Weight of only 1,000 pounds



# 1915 Ford Model T Convertible (\*)

## This 1915 Ford Model T was donated to the Martin Museum by Robert Fisher.

The Ford Model T has an extensive history that stretched over nearly 20 years. It is often called the Tin Lizzie, Flivver, Leaping Lena, or Jitney, and is credited with "putting America on wheels." In 1915, the Model T cost approximately \$440.

Henry Ford, founder of the Ford Motor Company, produced a vehicle that was affordable, but more importantly, mass produced. By using an assembly line to construct parts, rather than the traditional hand assembly, the process was streamlined. With dealerships and factories setup throughout the world, the Model T was mass produced and easily available to many buyers. In 1915, Ford produced 1-million Model T vehicles.

Henry Ford conceived a series of cars between the founding of the company in 1903 and the introduction of the



Model T. Ford named his first car the Model A and proceeded through the alphabet up through the Model T. Twenty models in all, not all of which went into production. The production model immediately before the Model T was the Model S, an upgraded version of the company's largest success to that point, the Model N. The follow-up to the Model T was another Ford Model A, rather than the "Model U". The company publicity said this was because the new car was such a departure from the old that Ford wanted to start all over again with the letter A.

The Model T was Ford's first automobile mass-produced on moving assembly lines with completely interchangeable parts, marketed to the middle class. Henry Ford said of the vehicle:

I will build a motor car for the great multitude. It will be large enough for the family, but small enough for the individual to run and care for. It will be

constructed of the best materials, by the best men to be hired, after the simplest designs that modern engineering can devise. But it will be so low in price that no man making a good salary will be unable to own one – and enjoy with his family the blessing of hours of pleasure in God's great open spaces.

Spec...

- Production Oct 1908 through May 1927
- Front-mounted 4-cylinder, 177 cubic inch engine
- 20 horsepower
- Magneto ignition
- Electric start

Rick DeBruhl's Commentary - The Model T Changed Everything



# 1915 Ford Model T Depot Hack (\*)

This Ford Depot Hack (or station wagon) was used to transport people from the train depot at Yosemite National Park to the hotels nearby. This is a complete frame-off restoration.

The Depot Hack was made to hold luggage and passengers and was used as a minibus-like vehicle or taxi. It was specifically built to hold a high capacity of people and their luggage; the depot hack was not on Ford's catalogue but was made by independent firms who used as a passenger vehicle. The names "station wagon" and "depot hack" did not come into existence by coincidence. In the early days of the

automobile, most people still traveled by train from city to city. Vehicles were sent by hotels to pick up visitors and their baggage to bring them back to the hotel. They were wagons sent to the station or hacks sent to the depot, thus

"station wagon" or "depot hack." This gave rise to a new industry, as wagon builders typically took a truck or large-car chassis and added a simple wooden body with many seats and room for luggage.

The Ford Model T used a 177 cu in (2.9 L) sidevalve, reverse-flow cylinder head inline 4-cylinder engine. It was primarily a gasoline engine. It produced 20 hp (14.9 kW) for a top speed of 45 mph (72 km/h). It was built in-unit with the Model T's novel transmission (a planetary design), sharing the same lubricating oil.

The T engine was known for its simplicity,







reliability, and economy. The engine remained in production for many years, and millions of units were produced. The engine design's lifespan exceeded

that of the Model T vehicle itself, with industrial, marine, and military applications extending its production run. The T engine is on the Ward's 10 Best Engines of the 20th Century list.

The T engine was produced continuously from September 27, 1908, through August 4, 1941, exactly 12,000 days. This makes it one of the longest engines in series production, especially considering that the specifications remained mostly unchanged for this entire duration. Its production run for the U.S. consumer market for passenger cars and pickups was shorter, being the 19 years' production run of the Model T itself for that market (1908 to 1927). But the engine continued to be produced and sold to various consumer, industrial, military, and marine markets throughout the world until 1941.

Specs...

- Engine: 177 cu. in. 4-cylinder
- Power: 20 hp
- Top Speed 45 mph
- Transmission: 2-speed planetary

## **1928 Ford Model AR Business Coupe (\*)** Donated by Allan Solheim Jr.

The Model A's design features include: nickel-plated radiator shell, vertically fluted headlamp lenses, drum-shaped taillamps, sheet metal radiator fan shroud, and round center bumper clamp.

Ford customers made it clear in the mid-1920s that the venerable Tin Lizzie – the Ford Model T - had run its course and that it was time for Ford to develop the "next big thing" for the automobile market. While competitors were building cars that were better suited to the quickly modernizing roads and consumer tastes, Henry Ford believed that the Model T was still the best option for those living in rural areas, as well as those who desired accessible prices. It



became clear to everyone that updates and lower prices for the T would no longer suffice, so in late 1926 Henry Ford directed his engineers to start work on a new Ford – the Model A.

Doug Fairbanks and Mary Pick with a 1928 Ford Model A Sport Coupe



The new Ford was a completely different car that did not carry-over any parts from the Model T. It was lower and sleeker than the Model T and had beautiful bodylines that were the direct influence of Edsel Ford's styling ideas. While it still used a four cylinder, similar

to the Model T, the Model A was more

powerful and smooth and was capable of 55 to 65 mph. It came with Triplex shatterproof safety windshield and hydraulic shocks, both a first for Ford and unheard of in the



low-priced field. It was also the first Ford to carry the famous blue oval logo and the first car assembled at the new Rouge manufacturing complex. As for the name, Henry Ford said that the car was so new and different that they would "wipe the slate clean and start all over again with Model A."



Introduced to the public in December 1927, the 1928 Model A was an immediate sensation. Some 10 million people viewed the new vehicle in the first week. The crowds gathered in such numbers that many cities needed to send police to help direct traffic around those who lined up to see the new Ford. While enthusiasm and demand were high, production lagged. The

newly installed assembly line for the Model A at the Rouge was not up to full capacity until the middle of 1929, when they were able to produce 9,000 units a day.

The Model A showed that customers' tastes were developing as fast as the newly installed paved roads and manufacturers needed to change as quickly. It also showed that Henry was indeed "able to make a lady out of the Lizzie!"

specs:

- Engine: 201 cubic inch (3.3 L) water-cooled L-head inline four-cylinder
- Horsepower: 40 horsepower (30 kW) at 2200 RPM
- Torque: 128 ft-lbs (174 NM) at 1000 RPM
- Transmission: Three-speed sliding-gear manual with a single speed reverse
- Brakes: Four-wheel mechanical drum brakes
- Wheelbase: 103.5 inches (2,630 mm)
- Final drive ratio: 3.77:1
- Drive type: Rear wheel
- Body/chassis: Steel unibody
- Weight: 2230 lbs (1011.511 kg)
- Price: \$460-\$600





# 1930 Ford Model A Standard Coupe (\*)

The Ford Model A (also colloquially called the A-Model Ford or the A, and Abone among hot rodders and customizers) is the Ford Motor Company's second market success, replacing the venerable Model T which had been produced for 18 years. It was first produced on October 20, 1927, but not introduced until December 2. This new Model A (a previous model had used the name in 1903–04) was designated a 1928 model and was available in four standard colors.

By February 4, 1929, one million Model As had been sold, and by July 24, two million. The range of body styles ran from the Tudor at US\$500 (in grey, green, or black) to the town car with a dual cowl at US\$1,200. In March 1930, Model A sales hit three million, and there were nine body styles available.



Model A production ended in March 1932, after 4,858,644 had been made in all body styles. Its successor was the Model B, which featured an updated inline four-cylinder engine, as well as the Model 18, which introduced Ford's new flathead (sidevalve) V8 engine.

The Model A came in a wide variety of styles including coupes (standard and deluxe), business coupe, sports coupe, roadster coupes (standard and deluxe), convertible cabriolet, convertible sedan, phaetons (standard and deluxe), Tudor sedans (standard and deluxe), town car, Fordors (five-window standard, three-window deluxe), Victoria, town sedan, station wagon, taxicab, truck, and commercial. The very rare special coupe started production around March 1928 and ended in mid-1929.

The Model A was the first Ford to use the standard set of driver controls with conventional clutch and brake pedals, throttle, and gearshift. Previous Fords used controls that had become uncommon to drivers of other makes. The Model A's fuel was situated in the cowl, between the engine compartment's fire wall and the dash panel. It had a visual fuel gauge, and the fuel flowed to the carburetor by gravity. A rear-view mirror was

optional. In cooler climates, owners could purchase an aftermarket cast iron unit to place over the exhaust manifold to provide heat to the cab. A small door provided adjustment of the amount of hot air entering the cab. The Model A was the first car to have safety glass in the windshield.

In Europe, where in some countries, cars were taxed according to engine size, Ford in the UK manufactured the Model A with a smaller displacement engine of 2,043 cc (124.7 cu in), providing a claimed output of 28 hp. However, this equated to a British fiscal horsepower of 14.9 hp (compared to the 24 hp of the larger engine) and attracted a punitive annual car tax levy of £1 per fiscal hp in the UK. It, therefore, was expensive to own and too heavy and uneconomical to achieve volume sales, so it was unable to compete in the newly developing mass market while also too crude to compete as a luxury product. European manufactured Model As failed to achieve the sales success in Europe that would greet their smaller successor in Britain and Germany.

Specs...

- 205 cubic-inch inline 4-cylinder engine
- 40 horsepower
- Top speed of 65-70 mph
- 3-speed manual transmission
- Double-action hydraulic shock absorbers
- 4-wheel mechanical brakes
- 103.5-inch wheelbase
- Total of 226,000 Standard Coupes built in 1930

# 1931 Ford Model A Coupe (\*)

The 1931 Ford Model A Coupe is a classic American car that remains an iconic symbol of early automotive design and engineering. Here's a detailed overview of its history, development, and specifications:

**History and Development** 

Introduction of the Model A (1927– 1931) succeeded the highly successful Model T, which had dominated the market for nearly two decades.

Introduced in December 1927 as a 1928 model, the Model A was Ford's response to growing competition from General Motors and Chrysler, offering improved performance, comfort, and style.

The Model A was designed under the leadership of Henry Ford and his son Edsel Ford, who emphasized more advanced styling and engineering.



The 1931 Model A marked the last year of production for this model line. By this time, the Model A had gone through several refinements, making it one of the most polished versions. In 1932, Ford introduced the Model B and V8, shifting focus to more powerful engines.

## **Design and Features**

The 1931 Ford Model A Coupe featured elegant, streamlined lines compared to the boxy Model T. It came with a rumble seat option (an extra seat in the rear that could be folded out), making it popular for small families or couples. A distinctive radiator grille, curved fenders, and optional dual sidemounted spare tires contributed to its classic appearance. The body was made of sturdy steel, mounted on a ladder-style steel frame. Colors and trim options were expanded in 1931, allowing buyers to choose from several stylish combinations.

## **Specifications**

- Engine: Type: 3.3-liter (200.5 cubic inches) inline-four engine.
- Power Output: 40 horsepower at 2,200 RPM.
- Torque: 128 lb-ft at 1,000 RPM.
- Carburetor: Zenith single-barrel updraft.
- Transmission: 3-speed sliding gear manual transmission.
- Drive: Rear-wheel drive.
- Top Speed: Approximately 65 mph (105 km/h).
- Fuel Economy: Around 20–30 miles per gallon, depending on conditions.
- Wheelbase: 103.5 inches.
- Length: Approximately 165 inches.
- Width: 67 inches.
- Weight: 2,200–2,500 lbs, depending on configuration.
- Suspension: Transverse leaf springs for both front and rear axles.
- Brakes: Mechanical drum brakes on all four wheels.
- Tires: 4.75-19 or 5.00-19 (19-inch diameter).
- Wheels: Wire-spoke wheels were standard.

## Legacy

The 1931 Ford Model A Coupe is celebrated among classic car enthusiasts for its reliability, simple mechanics, and timeless design. Its popularity has endured for decades, with many restored examples still seen at vintage car shows. It's also a favorite for hot rod customizations due to its robust chassis and availability of aftermarket parts.

Ford produced approximately 4,849,340 Model A vehicles across all body styles during the Model A's production run from 1927 to 1931. Of these, about 540,000 were built in 1931, the final year of production.

## 1932 Ford Model B Five-Window Coupe (Original) & 1932 Ford Model B Coupe (Custom) (\*)

The Model B was designed with as few technical changes as possible to keep the price low. Other than the engine and the design on the headlamp support bar (grille) and hub caps, it was indistinguishable from the Model 18 which was equipped with a V8 engine.

The Model B offered more than the Model A which was extremely popular. All 1932 Model Bs came with black fenders, wire wheels, and a rearmounted spare wheel. Options included single or twin side mounts, luggage rack, clock, interior and exterior mirrors, and choice of leather or broadcloth interior material.

The Model B was discontinued after the 1934 model year due to buyer's dislike of four-cylinder models and because of the success of the V-8. However, today the Model B is a highly collectible vehicle and people will pay a great deal of money to restore one to its original state.



This 1932 Ford Model B Five-Window Coupe was graciously donated to the Museum by local attorney Bill Kaufman.

Specs...

- 201 cubic-inch (3.3 liter) L-head inline 4-cylinder engine
- 65 horsepower
- 106-inch wheelbase

As with many other examples in the museum, this Model B Coupe shows what can be done to make a modern hotrod from a vintage car. The Ford Model A is one of the most utilized body styles by custom car builders and classic hotrod enthusiasts.

Specs for the custom 32...

- 350 cubic-inch V-8 engine
- 200 horsepower (estimated)
- 3-speed Turbo-400 automatic transmission
- 103.5-inch wheelbase



# 1932 Ford 4-Door Model 18 Phaeton (\*)

The term 1932 Ford may refer to three models of automobile produced by Ford Motors between 1932 and 1934: the Model B, the Model 18, and the Model 40. These succeeded the Model A. The Model B had an updated four-cylinder engine and was available from 1932 to 1934.

Rather than just updating the Model A, Ford launched a completely new vehicle for 1932. The V8 was marketed as the Model 18 in its initial year, but was commonly known as the Ford V-8. It had the new flathead V8 engine. The Model 18 was the first low-priced, massmarketed car to have a V8 engine, an important milestone in the American automotive industry. The 221 cu in (3.6 L) V8 was rated at 65 horsepower (48 kW; 66 PS), but power increased significantly with improvements to the carburetor and ignition in





succeeding years. The V8 was more popular than the four-cylinder, which was essentially a variant of the Model A engine with improvements to balancing and lubrication.

The 1932 Ford was available in 7 body styles; 3-door roadster, 2-door coupe, 2-door sedan, 4-door sedan, 2-door cabriolet, 4-door phaeton (like this one) and a pickup.

The V8 was available in the Model 18 in 1932, and in the Model 40 in 1933 & 1934. The company also replaced the Model AA truck with the Model BB, available with either the four- or eight-cylinder engine.

The three car models were replaced by the streamlined Model 48 in 1935 which used the same chassis as its predecessor. The 1937 Ford would be the last to use the old 1932 chassis until 1940 when the car line of Ford was completely redesigned.

Today, the 1932 Ford is a highly collectible car. However, they were once inexpensive cars popular with hot rod enthusiasts who would tear them apart and use them as the foundation for a hot rod build. This is partly why it is so hard to find an unaltered 1932 Ford today. This vehicle is a good example of that of a 1932 Ford that was rebuilt as a hot rod.

The picture featured on the front cover of the Beach Boys' 1963 album Little Deuce Coupe was supplied by Hot Rod magazine, and features the body (with his head cropped in the photo) of the car's owner Clarence 'Chili' Catallo and his own customized three-window 1932 Ford coupe.



Specs our car...

- 1948 Ford engine
- Aluminum cylinder heads
- Carter 4-barrel carburetor

## **1936 Ford Humpback Custom (\*)** by Dain Gingerelli ~ American Rodder

The Story behind the 1936 Ford - Here's the situation: You're in the middle of building a chassis for a '40 Ford, and you're pretty excited about the project too, because you've been away from the hobby for about 17 years. Those were hectic years, filled with racing modified circle track cars in the dusty bullring tracks of the Southwest. And now that there are no checkered flags to chase, the lay-back life style of rodding is treating you pretty good.

Then, one day, just before heading out to the garage to work on that '40 Ford chassis some more, you browse through the classified ads. And there, in black and white. reads an ad for a '36 Ford four-door convertible sedan Hmm, you say to yourself as you scratch your chin, that sounds interesting. So, you call and make an appointment to see the car, and end up buying it. Next thing you know the '40 Ford is on the back burner, while the '36 becomes the main course.

Such was the scenario that played out for Steve Peters. He says it was the convertible sedan's unique-ness— only about 1500 were made that

forced the turn over. That, and the discovery that the convertible's sheet metal was in excellent condition. "It had no rust," said Steve, "It was just in pieces, scattered all over the guy's back yard." So, Steve retooled for the '36 Ford, then continued building his new 'rod, Steve says that the '36 had come from Michigan, the previous owner had brought it to Arizona a number of years ago, and shortly after blowing it apart for restoration, lost interest. Steve gathered the pieces, and two years later ended up with one of the most unique-looking 'rods in the Southwest. "Not many people are familiar with this body style," says Steve. "Rodders who have been around cars for years don't know what it is. In fact, one year at the "Run To The Sun" somebody said, 'There's that four-door with the roof cut off.' I set them straight right away!"

Steve especially enjoys showing off the car's convertible top (a reproduction courtesy LaBaron-Bonney). The rag top can be opened in three positions, he says, the front half can be peeled back to expose only the front seats to the sun and wind, it can be



scooted back until only what amounts to the C-pillar remains up, or the entire top can be dropped in the usual convertible-top manner.

Despite the convertible sedan's refined demeanor, it can serve up a big bite. People should thank Steve's racing background for that, confirming that you can take the boy out of the race, but you can't take the race out of the boy. In this case, the "race" is a supercharged Chevy small-block that's been stretched to a full 406-cubic-inches. In fact, the motor's manifest reads like a check list to a race car engine: balanced and blueprinted throughout, Isky cam with roller rockers, Holley 750 carburetor, B&M blower (no longer on this car), block hugger headers, and Mallory dual-point ignition

net result is, according to Steve, 500 horsepower. But once Steve closes the four-piece hood, the '36 once again assumes a less intimidating stance. The chrome-spoke Sharp wheels shine with a hint of luxury, while the deerskin-color leather and cloth interior offers the kind of comfort that makes you want to settle back, pull the top all the way down, then cruise to the nearest rod run.

That's exactly the life style that Steve has chosen with his new toy, too. The red convertible sedan is casual in its approach to how rodding should be, yet when the racer inside Steve wants to play, all he has to do is tap gently with the right foot. And when he does that, everybody listens.

Even those who don't really know what a 1936 Ford convertible sedan really is.

Specs... Engine: Chevy small-block 406 ci Transmission: Turbo 350 Frame: 1936 Ford Front Suspension & Steering: Mustang II Rear Suspension: Corvette



## 1936 Ford Model 68 Tudor Sedan Custom (\*) From the Alexander Ozechowski Collection

The one-year-only styling of the 1936 Ford Tudor Sedan combines the traditional upright grille with a streamlined body to create one of the best-looking cars of the period, no matter the manufacturer. This rare 1936 Ford Tudor Sedan with its integrated trunk is a neat 2-door pre-war car that shows off all of Ford's early styling cues. Only 20,515 Tudor Sedans were produced in 1936.

This car is fully customized from top to bottom, front to back by local auto builder and collector Alexander "Ski" Orzechowski. The original 221 cubic-inch inline 8-cylinder engine was replaced with moder power of a 454 cubic-inch V-8. Other performance improvements under the tilt hood include a B&M blower, custom headers, Holley fuel system, Turbo 400 transmission, MSD ignition, and much more. Other modem equipment includes rack and pinion steering, rear four-link suspension with coil-over shocks, B&M shifter, Auto Meter gauges, 12-bolt locker rear end, and 16-inch-wide rear wheels with Mickey Thompson racing tires.





This beautiful car has a classic deep black paint job, and custom interior with a moder tilt steering column.

The Specs...

- 454 cubic-inch V-8 Chevy "big block" engine
- 3-speed Turbo 400 automatic transmission
- Estimated 500 horsepower
- 112-inch wheelbase
- Original price of \$545

### Revision May 20, 2025 rev U **1946 Ford Super De Luxe 2-Door Convertible (\*)**

The 1946 Ford Super De Luxe was one of the first post-World War II automobiles produced by Ford, marking the resumption of civilian vehicle production. Ford continued with pre-war designs due to tooling limitations and high demand for new cars. The Super De Luxe was the top-tier trim level, offering upgraded materials and features compared to the base and midrange De Luxe models.

The 1946 models had subtle updates to distinguish them from pre-war cars, including a new grille with horizontal bars, redesigned trim, and slight changes to the front fenders and hood.

Market Position: Positioned as a stylish and well-equipped vehicle for families or individuals looking for more comfort and refinement. The 1946 Ford maintained a rounded, streamlined design from the prewar era but with improved details. The Super De Luxe series was a strong seller due to its blend of comfort, performance, and affordability.

The 1946 Ford Super De Luxe was available in a variety of body styles; 2-door coupe, 2door convertible, 2-door sedan, 4-door sedan and a station wagon (Woody). The station wagon featured real wood paneling,







making it a standout option and popular among wealthier buyers. Base Price (in 1946):  $\sim$ \$1,100-\$1,700 depending on the body style and options. Adjusted for inflation, this would be approximately \$15,000-\$25,000 in today's dollars.

The 1946 Ford Super De Luxe remains a favorite among classic car enthusiasts for its iconic design, smooth-running V8 engine, and historical significance as one of the first post-war automobiles. The Woody station wagon, in particular, is highly collectible.

### Specs...

- Engine: Flathead V8, 239 cubic inches, 100 horsepower (ours)
- Engine Option: Inline-6, 226 cubic inches, 90 horsepower
- Transmission: 3-speed manual transmission: Column-mounted "three-on-the-tree" shifter.
- Wheelbase: 114 inches
- Overall Length: ~196 inches (varied slightly by body style)
- Suspension: Front Independent suspension with a transverse leaf spring Rear - Solid axle with a transverse leaf spring.
- Brakes: Hydraulic drum brakes on all four wheels.

**Available Options:** 

- Radio: An AM radio with push-button tuning.
- Heater: A hot-water heater for cabin comfort.
- Spotlight: Mounted for extra utility.
- Whitewall tires: For an upscale appearance.
- Fog lights: For improved visibility.
- Overdrive: Optional for improved fuel economy on the highway.
- Turn Signals: Optional on some models.
- Bumper Guards: For added protection.

# **1947 Ford Super Deluxe Fordor (\*)**

The 1947 Fords truly marked the end of an era - since Henry Ford passed away on April 7, 1947. His last personal car was a dark blue 1942 Super Deluxe Fordor sedan with a 1946 Super Deluxe grille.

The 1947 Ford De Luxe Fordor (four-door sedan) was part of Ford's lineup during the immediate post-war era, continuing the streamlined pre-war designs with minor updates. The De Luxe trim was positioned between the base Standard model and the top-tier Super De Luxe, offering a balance of affordability and added style. The 1947 models were largely unchanged from the 1946 lineup, as manufacturers focused on meeting pent-up demand rather than developing new designs.

Mid-tier model offering practical design, a comfortable interior, and solid performance for families and professionals. Smooth, rounded lines with subtle chrome accents, a large front grille, and a robust design reflecting pre-war styling trends. The Fordor sedan was particularly popular due to its spacious interior, making it ideal for families and those needing a versatile, comfortable car.



Base Price (1947): ~\$1,300, adjusted for inflation, this would be roughly \$18,000-\$20,000 today, depending on optional equipment.

The 1947 Ford De Luxe Fordor remains a classic example of practical yet stylish post-war American automobiles. It is prized by collectors for its robust Flathead V8 engine, period styling, and its role in the resurgence of the American auto industry after WWII. Many restored models are seen at vintage car shows today, especially the V8-powered versions.

Specs...

**Engine Options:** 

- Flathead V8, Displacement: 239 cubic inches, 100 horsepower, Renowned for its durability and smooth operation, the V8 was the preferred choice for many buyers.
- Inline-6, 226 cubic inches, 90 horsepower, slightly less powerful than the V8 but offered improved fuel economy.

- 3-speed manual transmission: Operated via a column-mounted shifter ("three-on-the-tree").
- Top Speed: ~80 mph
- Wheelbase: 114 inches
- Suspension: Front: Independent suspension with a transverse leaf spring, Rear: Solid axle with a transverse leaf spring, Brakes: Hydraulic drum brakes on all four wheels.

**Standard Features** 

- Dual windshield wipers.
- Sun visors for driver and passenger.
- Steel wheels with hubcaps.
- Basic instrumentation, including a speedometer and fuel gauge.
- Rubber floor mats for easy cleaning.

#### **Available Options**

- AM Radio: A factory-installed push-button AM radio.
- Heater/Defroster: A hot-water heater for cabin comfort and improved windshield defogging.
- Whitewall Tires: Offered a premium look.
- Fog Lamps: For enhanced visibility in poor conditions.
- Turn Signals: Optional on some trims.
- Spotlight: Mounted for additional functionality.
- Overdrive: Improved fuel economy and reduced engine wear during highway driving.
- Bumper Guards: Additional protection for the front and rear bumpers.
- Exterior Mirrors: Optional side mirrors for better visibility.
- Luggage Rack: Roof-mounted for additional cargo capacity.

### Specs & Options our car...

- 239 cubic-inch modified flathead V-8 engine
- 100 horsepower
- 3-speed manual transmission
- 114-inch wheelbase
- Holley 4-barrel carburetor
- Dual exhaust
- Chrome bumper guards
- Rear fender stone shields
- Tan painted steel wheels
- Wide whitewall tires
# 1948 Ford Super Deluxe Sedan (\*)

Ford Motor Company introduced its Deluxe Ford line in 1938 as an upscale alternative to bridge the gap between its base model and luxury Lincoln cars. The Deluxe name was first used starting in 1930 to specify an upscale trim, then later the Deluxe Ford line was differentiated as a separate "marque within a marque" with separate styling and pricing.

The Ford car was thoroughly updated in 1941, in preparation for a time of unpredictability surrounding World War II. The 1941 design would continue in an aborted 1942 model year and would be restarted in 1946 and produced until 1948 when the more modern 1949 Fords were ready.

The final year for the old-style Ford was 1948, with an all-new model launched partway through the year. The woodsided Sportsman convertible, supplied by the Ford Iron Mountain Plant, ended the year with just 28 built, and the all-wood bodies on the woody station wagons were replaced with steel for the 1949 season. The old car-based trucks were replaced by the F-Series this year. With Ford in financial chaos during this period, sales fell well behind Chevrolet, Ford output for 1948 was 430,198 vehicles, only about 62% of Chevrolet's output, and Plymouth came close to knocking Ford from second place with an output of 412,540 vehicles.

The Ford Deluxe line was used in a number of movies and television shows.

A 1948 Ford Deluxe convertible was the base car that was transformed into "Greased Lightning" in the movie Grease.







In the 1984 film The Karate Kid, Mr. Miyagi gives Daniel Larusso a creamcolored 1947 Ford Super Deluxe convertible as a birthday gift. The car was actually a gift to Ralph Macchio from the film's producer. To this day, Macchio still owns the car. The car reappears in the Cobra Kai spinoff TV show several times where Daniel is seen to still own it. In the third season, Daniel states that getting his first car from Mr. Miyagi inspired him to go into the car business.

In the 1985 film Back to the Future and its sequel Back to the Future Part II, the car which Biff Tannen owns in 1955 was a black 1946 Ford Super Deluxe convertible.

Specs...

- 226 ci (3.7 L) Flathead Inline 6 Cylinder Engine, 6.8:1 Compression, Holley 1-barrel carburetor
- Bore: 3.3 in (83.82 mm) Stroke: 4.4 in (111.76 mm)
- 95 hp @3,300 rpm, 180 lb-ft @1,200 rpm, Maximum rpm: About 4,250 rpm
- 3 speed manual, 3.78:1 axle ratio
- ~3,400 lb (1,542 kg) curb weight
- Performance (Estimated):
- 0-60 mph: 20.1 seconds
- 1/4 mile: 21.7 seconds @62 mph
- Top speed: 79 mph (127 kph)
- Cost about \$1,225 in 1948 (equal to \$15,774 in 2024)

**Features:** 

- Heater/defroster
- Cowl vent (for fresh air)
- Radio with audio adjustment
- Clock on the dash
- Locking glove box
- Locking steering column

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## 1949 Ford Country Squire (Woody Wagon) (\*)

The 1949 Ford is a line of cars produced by Ford from the 1949 to 1951 model years. The successor to the prewar 1941 Ford, the model line was the first full-size Ford designed after World War II, becoming the first Ford car line released after the deaths of Edsel Ford and Henry Ford. From 1946 to 1948, each of the American Big Three concentrated on the restoration of car production, offering updated versions of their 1941-1942 model lines. Released in June 1948, the 1949 Ford was the first major "postwar" American car line, beating Chevrolet to market by six months and Plymouth by nine.

In response to its design, the model line would be called the "Shoebox Ford", denoting its slab-sided "ponton" design. While the design theme had been in use since the late 1920s to streamline automobiles, the



**1949** Ford marked its widest-scale use, removing running boards entirely and integrating front and rear fenders into a single, smooth body form.

Designed by artist Frank L. Engle, the Ford crest emblem made its first appearance for 1950; in various forms, the emblem was used through the 1991 model year. In other firsts, this generation marked the first use of keyed ignition and the first automatic transmission option in Ford vehicles.

The Ford adopted a drop-center ladder frame; to further modernize its design, the transverse-leaf front and rear suspension (a feature in use since the Model T) was retired, replaced by a coil spring independent front suspension and longitudinal rear leaf springs. The torque tube driveshaft was replaced by a more universally-used Hotchkiss drive shaft.

Carried over from the previous generation, a 226 cubic-inch L-head inline-6 was the standard engine with an optional 239 cubic-inch Flathead V8.

The 1949 Ford debuted at a gala at the Waldorf-Astoria Hotel in New York City in June 1948, with a carousel of the new model line complemented by a

revolving demonstration of the new chassis; the new integrated steel structure was advertised as a "lifeguard body". Though wood was again used for external body panels, the "woody" station wagon adopted a steel inner body structure. To increase its body rigidity, the frame of the convertible received an "X member" reinforcement.

Alongside the redesign of the car, Ford updated its model nomenclature for 1949. The previous Custom, De Luxe, and Super De Luxe names were replaced by new Standard and Custom trims, with Tudor and Fordor sedans (two-door and four-door, respectively), fastback Club Coupe and Business Coupe (the latter, rear seat delete), Convertible Club Coupe, and two-door Station Wagon styles. In the center of the "Bullet-nose" grille emblem, Ford embossed either a "6" or an "8" on top of a red circle, denoting the fitment of an inline-6 or V8 engine.

For 1949, Ford returned to first place among American manufacturers, selling 1,118,740 Ford cars. While bolstered by an extended 16-month model year, the 1949 Ford was met with success.

Specs...

- 239 cubic-inch V-8 engine
- Downdraft carburetor
- Oil bath air cleaner
- 3-speed transmission
- Column-mounted gear shift
- Third row seat
- Electronic windshield wipers
- Clock and radio

# 1951 Ford Country Squire Wagon (\*)

**Designed by Eugene Gregorie and Ross** Cousins, the Ford station wagon marked the first transition away from the full "woodie". In place of a complete wooden body aft of the firewall, the 1949 Ford station wagon was designed with a steel roof, rear fenders, and tailgate fra. Wood construction remained for the side bodywork and upper and lower tailgate (using mahogany plywood trimmed by maple or birch). Sharing its body with Mercury, the Ford station wagon was offered in Custom trim. To reduce noise and improve sealing, the station wagon was offered with two doors instead of four; however, three seats were used, allowing eight-passenger seating.

For the 1950 model year, Ford renamed its model lines; initially, the station wagon was a Custom Deluxe with the all new "Country Squire"





name introduced in early 1950. Several revisions were made for 1950 to improve functionality and capability. The second and third-row seats were redesigned, allowing their removal without tools. In another change, the Country Squire also received heavier-duty rear-suspension, wider tires, and a larger fuel tank over Ford sedans.

Following its introduction, the Country Squire underwent several revisions distinct from Ford sedans. For 1950, the spare-tire cover was deleted; in April 1950, the lower tailgate was redesigned, changing from all-wood construction to steel construction (with wood trim). For 1951, the Country Squire retained the dashboard of the 1950 Ford (with the 1951 steering column).

As a true "woodie", assembly of the Country Squire was labor-intensive, requiring completion at three assembly plants. Initial assembly of the steel body was completed at the Dearborn Assembly Plant, with the incomplete

body shipped to the Iron Mountain plant for the fitment of wood paneling; upon completion, the bodies were shipped back to various Ford assembly facilities for final assembly (mounting to frames, fitment of interiors).

For 1951, Ford outsourced final assembly of the Country Squire, contracting Ionia Body Company (an assembler of wood-bodied station wagons for General Motors).

During its production, the first-generation Country Squire was available with engines shared with Ford sedans. The standard engine was a 226 cubic-inch 95 hp H-series inline-6, with a 239 cubic-inch 100 hp Flathead V8. For 1950, a 3-speed manual was standard, with a 3speed Ford-O-Matic automatic becoming an option in 1951.

The 1951 Country Squire was the last model where actual wood was used on the body. The genuine wood body panels were manufactured at the Ford Iron Mountain Plant in the Michigan Upper Peninsula from lumber owned by Ford Motor Company. For 1952, all-steel bodies replaced wooden body structures to reduce production costs. Subsequently, exterior body trim consisted of simulated woodgrain.

The base price of the 1951 Country Squire was \$2,021

Specs...

- 5.7-liter crate engine
- 300 horsepower
- MSD ignition (making ten times the spark)
- 3-speed transmission
- 4-wheel disc brakes with power assist for better stopping

# **1951 Ford F Series Pickup Truck (\*)**

Ford Motor Company halted civilian auto production by Feb. 10, 1942, in order to aid in the World War II effort. Ford went to work building bombers, jeeps, tank engines and other military vehicles. The 1946 Ford truck was the first Ford truck model on the assembly line following the end of the war in 1945. Parts from the 1942 model were used, which explains the similarities in the two trucks.



The generation of Ford trucks that included the 1946 pickup had a waterfalltype grill, hood molding and side hood louvers. They also featured hydraulic double-acting shock absorbers. The Ford name was exhibited on a wingshaped plate mounted on the hood, just above the grill. Similarly, the Ford logo on the hubcaps was given a winged appearance. It had round headlights, which were accented by smaller round marker lights on each fender. The pickup bed was framed with welded steel. Wooden planks constituted the floor of the bed, with steel strips bolted between each board.

Even vehicles built in 1946 came with a wide range of options, although most are standard in modern vehicles. Drivers of the 1946 Ford truck could request rear shocks, an interior heater, passenger-side windshield wiper, passenger-side taillight, a sliding rear window and an oil bath air cleaner. There were also several options for paint color, including black, greenfield green, navy blue, botsford blue, modern blue, dynamic maroon, dark slate gray, silver sand, willow green and light moonstone gray.

Specs...

- 239 cubic-inch V-8 engine
- 100 horsepower
- 3-speed manual transmission
- 114-inch wheelbase
- Original cost of \$1,050
- Restored and donated by Barry Norman

# **1955 Ford Fairlane Crown Victoria (\*)**

This 1955 Ford Fairlane Crown Victoria is one of only 33,165 Crown Victoria's produced in 1955. Making it even more rare, it is one of only 1,999 built with a transparent top. Interestingly, this was known as a Fairlane Crown Victoria "Skyliner" during the 1954 and 1956 model years - but not in 1955.

The Crown Victoria is the most prized hardtop model in the Victoria lineup.

Constructed on the same wheelbase chassis using the same suspension components as other Fairlane models, they also used the same engines and transmissions. Little change to the exterior was evident, other than the obvious "basket handle" trim atop the roof, additional chrome addons and emblem updates.



The American Ford line of cars gained a new body for 1955 to keep up with surging Chevrolet and Plymouth, although it remained similar to the 1952 Ford underneath. The Mileage Maker I6 was bumped up to 223 CID (3.7 L) for 120 hp (89 kW) and the new-for-1954 Y-block V8 was now offered in two sizes: Standard Fords used a 272 CID (4.5 L) version with 162 hp (121 kW) with 2-barrel carburetor and single exhaust or 182 hp with 4-barrel carburetor and dual exhaust, but the large 292 CID (4.8 L) unit from the Thunderbird was also offered, boasting 193 hp (144 kW).

Apart from the engine changes, customers were sure to notice the new Fairlane, which replaced the Crestline as the top trim level, while a new Crown Victoria-style featured a chrome "basket handle" across the familiar (and continued) "Victoria" hardtop roof, which originally appeared

on the Mercury XM-800 concept car. This use of a styling feature to visually separate the front of the passenger compartment from the rear reappeared on the 1977-1979 Ford Thunderbird, the Ford LTD Crown Victoria, the Ford Fairmont Futura and Mercury Zephyr Z-7 coupes. The company now marketed three different rooflines on its two-door models; the tall two-pillar Mainline, Customline, and Fairlane sedans, pillarless hardtop Fairlane Victoria and the chrome-pillar Fairlane Crown Victoria. The Fairlane Crown Victoria was also offered with a transparent "skylighted" top.<sup>[2]</sup> New brakes were used 11-inch (280 mm) drums. Also, Fords had a new frame, but still with five cross members.

The Fords introduced for 1955 also featured the panoramic windshields found on Oldsmobiles, Buicks and Cadillacs the previous year. With this panoramic windshield the A-pillars have a vertical angle. this gives the driver more panoramic visibility.

For the first time, Ford offered seat belts as a dealer option (not factory installed, with instructions provided by a Service Bulletin). Also new for 1955 was Ford's first factory installed air conditioner. This "Select Aire" option featured an integrated heater core and evaporator coil unit within the dash and cold air discharge vents located on top of the dash on either side of the radio speaker. The "Select Aire" design was carried over to the 1956 models with slightly different cold air vents in the same location as on the 1955 models. The condenser was mounted in front of the radiator as in later cars.

This car sold for approximately \$2,700 originally and the transparent top was a \$69.49 option. Although panoramic moonroofs are fairly commonplace today, this was a rare feature in the 1950s.

Specs...

- 272 cubic-inch V-8 engine
- 182 horsepower
- 3-speed "Fordmatic automatic transmission
- Green tinted 1/4" thick molded acrylic-plastic roof panel
- Power windows
- Power seat
- Pushbutton radio with rear antenna
- Fender skirts

# **1955 Ford Thunderbird Convertible (\*)**

Ford unveiled the Thunderbird at the Detroit Auto Show in February 1954. The first production car came off the line on September 1954 and went on sale the next month as a 1955 model. Sales were brisk, with 3,500 orders placed in the first ten days. While only 10,000 were planned, 16,155 cars were ultimately sold in 1955.

A rare domestic two-seater for the era, it was designed to be a luxury tourer and not a sports car. However, it could reach speeds of 100 to 115 mph depending on the transmission ordered.

The car used existing chassis and suspension design and off-the-shelf Ford mechanical components. It was the first two-seat Ford since 1938. The exhaust pipes exited through twin bumper guards bolted to the rear bumper. The car featured four-way powered seats and



pushbutton interior door handles. Other unique features were a telescoping steering wheel and a tachometer.

Specs...

- Cost: about \$3,267 in 1955 (equal to \$37,833 in 2024)
- Engine: V8 292 ci (4.8 L) Ford Y-Block OHV 90°, Holley 4-barrel carburetor
- Bore: 3.75 in (95.25 mm) Stroke: 3.3 in (83.82 mm)
- Power: 193 hp @4,400 rpm, 280 Ib-ft@2,600 rpm, Maximum rpm: About 5,000 rm
- 3 speed manual
- Performance: 0-60 mph: 8.9 seconds, 1/4 mile: 17 seconds @82 mph
- Top speed: 104 mph (167 kph), 111 mph (179 kph) with longer gearing

## Rick DeBruhl Commentary - "This Thunderbird ran circles around the 1955 Corvette"



### Revision May 20, 2025 rev U **1956 Ford Thunderbird Convertible 1<sup>st</sup> Generation (\*)**

The Ford Thunderbird was introduced in February 1953 as a response to Chevrolet's new sports car, the Corvette, which was publicly unveiled in prototype form just a month before. Under rapid development, the Thunderbird went from idea to prototype in about a year, being unveiled to the public at the Detroit Auto Show on February 20, 1954. It was a two-seat design available with a detachable fiberglass hardtop and a folding fabric top.

Production of the Thunderbird began on September 9 1954, with the car beginning sales as a 1955 model on October 22, 1954. Though sharing some design characteristics with other Fords of the time such as single circular headlamps, tail lamps, and modest tailfins, the Thunderbird was sleeker in shape and featured a hood scoop and a 150 mph (240 km/h) speedometer not available on other Fords. It used mechanical components from massmarket Ford models. The





Thunderbird's 102.0 in (2,591 mm) wheelbase frame was a shortened version used in other Fords and the standard 292 cu in (4.8 L) Y-block V8 came from Ford's Mercury division.

Though inspired by and positioned directly against the Corvette, Ford advertised the Thunderbird at launch as a "personal car of distinction" and put a greater emphasis on the car's comfort and convenience features rather than its inherent sportiness.

The Thunderbird sold exceptionally well in its first year, outselling the Corvette by more than 23-to-one in 1955 with 16,155 Thunderbirds sold against 700 Corvettes.

Specs... Engine: V8 312 CI Power: 215 HP Assembled: Dearborn, MI Color Peacock Blue Interior Dark Peacock and White Vinyl Production Date: January 16, 1956



**1959 Ford Fairlane 500 Galaxie Skyliner (\*)** This car was used in the filming of a commercial for Arizona Driving Awareness produced by the Arizona Statewide Distracted Driving/Riding -Share the Road/Riding for the Long Haul.

The Ford Fairlane 500 Skyliner is a twodoor full-size retractable hardtop convertible, manufactured and marketed by Ford Motor Company for model years 1957–1959. However, early into the 1959 model year, its name was expanded to Fairlane 500 Galaxie Skyliner. The retracting roof system was marketed as the Hide-Away Hardtop, and was exclusively sold on this Ford-branded model, for three model years.

Ford's 1957 Skyliner was the world's first retracting hardtop convertible to be truly mass-produced by a car company from the factory, coming close to 50,000 sales. Earlier, French car-maker Peugeot had offered several such models in the 1930s, with the help of a coachbuilding company, which sold only in very limited numbers. It also marked the first time the hard roof



featured a folding (front) section, to retract and fit inside the car's trunk.

Offering the Skyliner Retractable in Ford's Fairlane (500) range, Ford was only the second car-maker in history to produce retractable hardtops in series (following the 1930s Georges Paulin designed Peugeot 401, 402, and 601 "Eclipse Decapotable" models, converted by Carrosserie Pourtout coachbuilders); and the world's first to reach four- and five-digit mass-production numbers. Ford's design was also the first series produced coupé convertible featuring a roof using two segments, and during its production run, the Skyliner was the only hardtop convertible available.

The Skyliner's retractable top operated via a complex mechanism that folded the front of the roof and retracted it under the rear decklid. Instead of the typical hydraulic mechanisms, the Skyliner top used seven reversible

electric motors (six for 1959 models), four lift jacks, a series of relays, ten limit switches, ten solenoids, four locking mechanisms for the roof and two locking mechanisms for the trunk lid, and 610 ft (185.9 m) of wiring. The top largely consumed available trunk space, limiting the car's sales, though the mechanism operated reliably. Production totaled 20,766 units in 1957, declining to 14,713 in 1958 and to 12,915 in 1959. An electric clock was standard. Fuel consumption was around 14 mpg<sub>-US</sub> (17 L/100 km; 17 mpg<sub>-imp</sub>) overall. The fuel tank was placed vertically in back of the rear seat, offering increased safety in a rear collision.

During the 1959 model year, Ford added the new top-of-theline Galaxie series to its full-size lineup, and the Skyliner model became part of that series. Although the 1959 Galaxie was designated as a separate series, Galaxies carried both "Fairlane 500" and "Galaxie" badging, on the rear and sides respectively. It came with the standard 292 cu in (4.8 L) 2barrel 200 hp (149 kW; 203 PS) V8 engine.

Specs...

- 352 cubic-inch engine
- 300 horsepower
- 3-speed transmission
- Spotlight side mirrors

### Revision May 20, 2025 rev U 1959 Ford Edsel F-350 Medium Duty Tow Truck (\*)

Edsel is a short-lived division and brand of automobiles that was marketed by the Ford Motor Company from the 1958 to the 1960 model years. Deriving its name from Edsel Ford, son of company founder Henry Ford, Edsels were developed to give Ford a fourth brand to gain additional market share from Chrysler and General Motors.

Following a loss of over \$250 million (\$2.29 billion in today's dollars) on development, manufacturing, and marketing on the model line, Ford quietly discontinued the Edsel brand before 1960.

While predominantly known for cars, Edsel also sold trucks - which were essentially Ford trucks with Edsel badging. Some of trucks (like this one) had "custom Edselcolored" green and white paint and

a green decal with a white Edsel "E" on each door. These were available to Edsel dealers in Conventional Medium Duty models (F-100, F-250, F-350, F-500, and F-600), Panel Trucks, Pickup or Express Styleside Box models (F-100), and a heavy-duty COE flatbed.

The 1959 Edsel 350 tow truck is a rare and unique vehicle, reflecting the short-lived production run of the Edsel brand by the Ford Motor Company. Edsel cars were produced from 1958 to 1960 and are known for their distinctive styling and innovative features, though they were ultimately unsuccessful in the marketplace.

The 1959 Edsel continued the brand's trend of unique and bold styling, though it was somewhat toned down from the 1958 models. Key design features included a less prominent horse-collar grille and more conventional styling to attract a broader customer base.





In 1959, Edsel offered two main series, the Ranger and the Corsair. However, the tow truck version would have likely been a conversion or a custom job rather than a factory-produced model. Typically, Edsel passenger cars or station wagons would have been modified for such purposes.

The 1959 Edsel cars were available with a variety of V8 engines, including the 332 cubic inch "Express V8" and the 361 cubic inch "Super Express V8." These engines would have provided ample power for a tow truck application.

Options included a manual transmission or the "Teletouch" automatic transmission, which featured push-button controls located in the center of the steering wheel.

The designation "350" likely refers to a specific model or variant, though detailed records of Edsel tow trucks are sparse due to their rarity. It's important to note that Edsel did not produce commercial vehicles like tow trucks as part of their standard lineup. Any Edsel tow trucks were likely aftermarket conversions done by local garages or coachbuilders using Edsel station wagons or sedans as the base vehicle.

The Edsel brand is often remembered as one of the biggest failures in automotive history, but it has since gained a cult following among classic car enthusiasts. Its innovative features and unique design make it a soughtafter collector's item.

Due to their limited production and unique place in automotive history, Edsels, including any tow truck conversions, are considered collectible. The rarity of a 1959 Edsel tow truck would make it a particularly interesting find for collectors.

The 1959 Edsel 350 tow truck is a fascinating example of automotive history, representing both the innovative spirit and the commercial challenges of the Edsel brand. While specific information on this model is limited due to its rarity and the likely custom nature of its creation, it stands as a unique piece of mid-20th century American automotive culture.

Specs...

- 292 cubic-inch Y-block V-8 engine
- 193 horsepower
- 4-speed manual transmission
- 130-inch wheelbase

# **1960 Frontenac Falcon Ranchero (\*)** This car was donated to the museum by Barry Norman, who also built the go-cart that is displayed in the rear of this vehicle.

Frontenac is one example of U.S. automakers' attempts to market slight variations of U.S. models as unique Canadian makes. Like the Monarch and Meteor brands marketed by the Ford Motor Company of Canada, the Frontenac was not part of the Ford or Mercury lines. It was its own marque and was marketed as such.

The Frontenac was essentially a 1960 Falcon with its own unique grille, taillights, and external trim including red maple-leaf insignias. It was the secondbest selling compact in Canada during its one and only year. A total of 9,536 Frontenacs were built at the Oakville, Ontario, plant.

However, research indicates that this vehicle was not manufactured in Canada.

Rather, it is an extremely





rare version of the Ford Falcon Ranchero that was manufactured in the U.S. and sold in Mercury/Meteor dealerships in Canada as a Frontenac Falcon Ranchero. The car sold originally for \$2,600.

### Specs...

- 144 cubic-inch inline 6-cylinder engine
- 90 horsepower
- 3-speed manual transmission
- 109-inch wheelbase

Unfortunately, most of the 9,536 ended up like this





## <u>Rick DeBruhl Commentary - "Help Solve the Frontenac Rancho Mystery!"</u>



# **1963 Ford Galaxie 500/XL Convertible**

The Ford Galaxie is a full-sized car that was built in the United States by Ford for model years 1959 through 1974. The name was used for the top models in Ford's full-size range from 1958 until 1961, in a marketing attempt to appeal to the excitement surrounding the Space Race. In 1958, a concept car was introduced called "la Galaxie" which incorporated the headlights into pods in line with the grille and a reduced front profile

Starting with 1962, all full-size Fords wore the Galaxie badge, with "500" and "500/XL" denoting the higher series. The Galaxie was the competitor to the high-volume full sized Chevrolet Impala and the Plymouth Belvedere.

The 1963 model was essentially unchanged from the previous year, except for some added trim and a reshaped windshield. Also, a four-door hardtop 500/XL was added. A lower, fastback roofline was added mid-year to improve looks and make the big cars more competitive on the NASCAR tracks with less drag and reduced aerodynamic lift at high speed.

### Of the 535,256 Ford Galaxie cars

produced in 1963, only 18,551 were 500/XL convertibles. The original price of this car was \$2,925.

Specs (Stock):

- Cost about \$4,086 in 1963 (equal to \$42,699 in 2025)
- 406 ci (6.6L) Ford FE OHV 90° V8 Engine, 10.9:1 Compression, 3 Holley Two-barrel carburetors
- Bore: 4.13 in (104.9 mm) Stroke: 3.785 in (96.14 mm)
- 405 hp @5,800 rpm, 448 lb-ft @3,500 rpm, Maximum rpm: About 6,500 rpm
- 4 speed manual, 3.00:1 axle ratio\*\* (3.50:1 standard, 2.91-5.83 optional)
- ~4,200 lb (1,905 kg) curb weight\*\*\*
- Performance: (Stock tires and 3.50:1 gearing)
- 0-60 mph: 6-7 seconds
- 1/4 mile: 15.3 seconds @93 mph

• Top speed: 138 mph (222 kph) with 3.80 or lower (numerically) gearing

Specs (as modified):

- Original 406 ci V8 was replaced at some point by a 390 ci V8 from a 1968 Ford Galaxie or Mustang, could also be a 428 ci (someone probably blew up the original engine, as the original cylinder heads are in the trunk)
- Added power steering/brakes and air conditioning
- Custom steel fan shroud
- Some chromed/polished under hood parts
- Braided steel hose covers
- Axle and/or ratio may have been changed
- Custom aluminum wheels and wider, radial tires (would have had 7-8 inch wide bias ply tires, on 14" or 15" wheels)
- Sony digital radio, tape player, and stereo amplifier
- Painted red at some point (was originally Rose Beige)

\*According to the brochures, XL stood for "extra luxury".

\*\*As odd as it may seem, the serial number and tag on the door show that this car was optioned with the 405 hp 406, 4 speed manual, and 3.00:1 ratio. As a result, this car was probably originally used for cruising/highway use rather than drag racing (this may have changed at some point, given the current modifications and that the engine has been replaced).

\*\*\*Stock curb weight, current weight with air conditioning and other modifications is probably closer to 4,350 lb (1,973 kg).

### Revision May 20, 2025 rev U 1964 Ford Thunderbird Convertible (4th Generation) (\*)

For 1964 the T-bird left sporty behind to become a personal luxury coupe. This model was a four-seat coupe that was longer than many four-door sedans because Ford focused on image, comfort and performance.

The 1964 retained a family resemblance to 1963 but was obviously new. The pointed profile was still evident, but from front or rear it was completely altered. The quad headlamps were moved to the extreme edge of the fenders, where they cut into the face of the car in canted oval cutouts.

In 1964 this wasn't exactly an all-new car, but it was totally fresh on the outside. Styled by L. David Ash and Art Querfeld under the direction of Ford design chief Gene Bordinat, the Flair Bird, as it would eventually be labeled





by T-Bird enthusiasts, sported new exterior sheet metal over the same unitconstruction platform used on the Bullet Birds of 1961-63.

The 1964 Thunderbird models were great looking vehicles, and the public thoroughly enjoyed the new features, which included a sculptured body and rectangular taillights that were set inside a massive bumper for extra safety. 1964 Thunderbird hardtop designs offered the consumer the Landau Roof model, which featured a durable fade—resistant padded vinyl top over the formal hardtop roof. The vinyl-covered top was available in black, white, blue and brown.

The 1964/1965 Thunderbirds offered a cockpit-style passenger compartment with bucket seats. Ford advertising dubbed the interior "The Private World of Thunderbird." The interior featured a swing-away steering wheel along with a future-thinking console that traveled downward and rearward between the front seats.

This generation of the Thunderbird was restyled in favor of a more squaredoff, "formal" look. The only remnant of the Thunderbird's former sporty image was that the standard 390-cubic-inch 300 hp V8 engine needed nearly 11 seconds to push the heavy T-bird to 60 mph. The softly sprung suspension allowed considerable body lean, wallow, and float on curves and bumps. Contemporary testers felt that the Buick Riviera, Pontiac Grand Prix and Chrysler 300K were substantially more roadworthy cars, but the Thunderbird retained its leading market share.

Total 1964 sales were excellent at 92,465 units, up nearly fifty per cent from the previous year, but the popularity of the Sports Roadster continued to decline, with only 50 Sports Roadster sold from the factory. The 1964 Thunderbird was the only model of this generation to have the word 'Thunderbird' spelled out on the front hood instead of a chrome Thunderbird emblem. The only transmission available was the Cruise-O-Matic MX 3 speed automatic. The listed retail price for the 1964 two-door hardtop coupe was US\$4,486 (\$44,071 in 2023 dollars).

Convertibles borrowed the opening mechanism from the all-new Lincoln Continental where the trunk lid would open electrically in a single piece, hinged at the back of the vehicle, then the fabric top would fold down and disappear beneath the trunk lid. The mechanism was originally used on the Ford Fairlane 500 Skyliner hardtop convertible of the late 1950s. Opening the trunk on convertibles for storage required that the lid be opened electrically, without deploying or retracting the folding convertible top.

The top line in Thunderbird advertising for the Flair Bird years was "The Private World of Thunderbird," painting a picture of exclusivity and prestige.

Specs...

- Powered by custom installed big block 428 cubic inch V-8 engine
- Upgraded C6 automatic transmission
- New and rare original factory correct Peacock finish
- White retractable top folds out of sight by means of rear hinged deck lid
- 113.2-inch wheelbase

# 1966 Ford Mustang GT (\*)

The first-generation Ford Mustang was manufactured by Ford from March 1964 until 1973. The introduction of the Mustang created a new class of automobiles known as pony cars. The Mustang's styling, with its long hood and short deck, proved wildly popular and inspired a host of competition.

It was introduced on April 17, 1964, as a hardtop and convertible, with the fastback version following in August 1964. Upon introduction, the Mustang, sharing its platform with the Falcon, was slotted into the compact car segment.

The first-generation Mustangs grew in overall dimensions and engine power with each revision. The 1971 model featured a drastic redesign. After an initial surge, sales steadily declined, and Ford began working on a new generation Mustang. With the onset of the 1973 oil crisis, Ford was prepared, having already designed the smaller Mustang II for the 1974 model year. This new car shared no components with preceding models.

As Lee Iacocca's assistant general manager and chief engineer, Donald N. Frey was the head engineer for the Mustang project supervising the development of the Mustang in a record 18 months from September 1962 to April 1964. while Iacocca himself championed the project as Ford Division general manager.

Drawing on inspiration from the mid-engined Ford Mustang I concept vehicle, Lee Iacocca ordered the development of a new "small car" to vicepresident of design at Ford, Eugene Bordinat.

Bordinat tasked Ford's three design studios (Ford, Lincoln-Mercury, and Advanced Design) to create proposals for the new vehicle.

The design teams had been given five goals for the design of the Mustang: It would seat four, have bucket seats and a floor-mounted shifter, weigh no more than 2,500 pounds (1,100 kg), be no more than 180 inches (5 m) in length, sell for less than US\$2,500 (equivalent to \$24,560 in 2023), and have multiple power, comfort, and luxury options.

Although the first few years were definitely good for Ford and its sporty Mustang, 1966 was the year all that hard work truly began to pay off. By 1966, most people began to associate the Ford Mustang with power and performance. It was the car to have if you needed a daily driver and it was the car to have if you needed a weekend cruiser with a sporty edge. It was a car for everyone who enjoyed a well-made vehicle, liked to drive and enjoyed looking great doing it.

In all, there were minimal changes to the Mustang in 1966. Production began in August of 1965 and the lineup featured Coupe, Convertible and Fastback trims.

For 1966, The Mustang sported additional new colors, a redesigned grille, a new





instrument cluster, and fresh style on the wheels. An automatic transmission became available for the "Hi-Po" V-8. Side scoops had a chrome trim with three wind-splits, and GT models received a new gas cap and driving lamps that now came standard.

The base price for the 1966 Ford Mustang Coupe was \$2,416, and the price of the GT package was \$276. Of the record 607,568 Mustangs produced in 1966, only 25,515 were GT models.

This car is one of several in the museum that was restored and donated to the museum by Barry Norman. This Mustang has a beautiful and rare Mustang Anniversary Gold paint job with a matching custom interior.

Specs...

- 289 cubic-inch "Hi-Po" V-8 engine
- 225 horsepower
- Autolite 4-barrel carburetor
- 3-speed Cruise-O-Matic automatic transmission
- 108-inch wheelbase
- Dual exhaust

## **1966 Ford Mustang Convertible (\*)**

The Ford Mustang is a series of American automobiles manufactured by Ford. In continuous production since 1964, the Mustang is currently the longest-produced Ford car nameplate. Currently in its seventh generation, it is the fifth-best selling Ford car nameplate. The namesake of the "pony car" automobile segment, the Mustang was developed as a highly styled line of sporty coupes and convertibles derived from existing model lines, initially distinguished by "long hood, short deck" proportions.

Originally predicted to sell 100,000 vehicles yearly, the 1965 Mustang became the most successful vehicle launch since the 1927 Model A. Introduced on April 17, 1964 (16 days after the Plymouth Barracuda), over 400,000 units were sold in its first year; the one-millionth Mustang was sold within two years of its launch. In August 2018, Ford produced the 10millionth Mustang; matching the first 1965 Mustang, the vehicle was a 2019 Wimbledon White convertible with a V8 engine.

The success of the Mustang launch led to multiple competitors from other American manufacturers, including the Chevrolet Camaro and Pontiac Firebird (1967), AMC Javelin (1968), and Dodge Challenger (1970). It also competed with the Plymouth Barracuda, which was launched around the same time. The Mustang also had an effect on designs of coupes worldwide, leading to the marketing of the Toyota Celica and Ford Capri in the United States (the latter, by Lincoln-Mercury). The Mercury Cougar was launched in 1967 as a unique-bodied higher-trim alternative to the Mustang; during the 1970s, it included more features and was marketed as a personal luxury car.

From 1965 until 2004, the Mustang shared chassis commonality with other Ford model lines, staying rear-wheel-drive throughout its production. From 1965 to 1973, the Mustang was derived from the 1960 Ford Falcon compact. From 1974 until 1978, the Mustang (denoted Mustang II) was a longerwheelbase version of the Ford Pinto. From 1979 until 2004, the Mustang shared its Fox platform chassis with 14 other Ford vehicles (becoming the final one to use the Fox architecture). Since 2005, Ford has produced two generations of the Mustang, each using a distinct platform unique to the model line.

Through its production, multiple nameplates have been associated with the Ford Mustang series, including GT, Mach 1, Boss 302/429, Cobra (separate

from Shelby Cobra), and Bullitt, along with "5.0" fender badging (denoting 4.9 L OHV or 5.0 L DOHC V8 engines).

This 1966 Ford Mustang convertible is part of the first generation of the model. In continuous production since 1964, the Mustang is currently the longestproduced Ford car nameplate.

The first-generation Mustang was wildly popular, and Ford struggled to keep up with the extremely high demand. Ford anticipated they would sell around 100,000 units a year and were somewhat unprepared when they received 22,000 orders in the first day alone. That initial success would continue, with 418,812 Mustangs sold in the first year, and more than a million in the first eighteen months.

Specs...

- 289 cubic-inch Windsor V-8 engine
- 2-barrel carburetor
- 200 horsepower
- Automatic transmission
- 108-inch wheelbase
- Original base price \$2,557
- A total of 72,119 Mustangs convertibles were sold in 1966



## Revision May 20, 2025 rev U 1968 Ford Fire Truck (*Maybe a Resto-Project?*)



## **1968 Ford Thunderbird**

The fifth generation of the Ford Thunderbird is a large personal luxury car that was produced by Ford for the 1967 to 1971 model years. This fifth generation saw the second major change of direction for the Thunderbird. The Thunderbird had fundamentally remained the same in concept through 1966, even though the styling had been updated twice. Over several years, debuts of the Ford Mustang, Mercury Cougar



and Dodge Charger began to erode Thunderbird sales and pushed Ford to make larger versions of the "T-Bird", including four-door models.

The 1968 Thunderbird saw the introduction of the new 385 series big-block "Thunder Jet" V-8 engines - one of five engine choices. The new engine made the cars some of the quickest and fastest Thunderbirds ever produced, despite their larger size and increased curb weight. Both the 1968 and 1969 model years saw only minor trim changes.

Specs...

- 429 cubic-inch V-8 engine
- 360 horsepower
- 3-speed Cruise-O-Matic automatic transmission
- 115-inch wheelbase
- Price new was \$4,925

## **1968-**<sup>1</sup>/<sub>2</sub> Ford Mustang 428 CJ (\*)

The "performance" of pony cars became a maior arena of competition, both for sales and manufacturer prestige. As the horsepower war escalated, the Ford Mustang platform and engine bay were redesigned to accommodate larger engine blocks. Late in the 1968 model year, Ford introduced the 428 cu in (7.0 L) Cobra Jet FE engine in a small group of Mustang GTs and the 1968 Shelby GT500KR, its largest and most potent "performance" engine. For the 1969 model year, Ford produced an overall "performance package", which was available with two smaller V8s the 351 cu in

(5.8 L) Windsor (standard) and 390 cu in (6.4 L) FE, and topped by the Cobra Jet. It included some additional handling upgrades and heavy appearance enhancements and was dubbed the "Mach 1".



Other engine options became available from 1970 through 1973.

Built to be the quickest factory drag racing car in 1968, the Cobra Jet Mustang was conceived by Bob Tasca of Tasca Ford and pushed into production at the urging of customers. The 1968 Ford Mustang 428 CJ obliterated everything in the Super Stock class at the 1968 NHRA Winter Nationals.

This is believed to be the highest scoring, nationally judged 1968-1/2 Cobra Jet Mustang. It is 1-of-51 "drag pack" cars and is rated at 0-60 mph in 5.4 seconds.

For the record, the overwhelming majority of '68-or '68<sup>1</sup>/<sub>2</sub>, if you prefer-CJ Mustangs were built in Dearborn. Of the 1,299 non-Shelby, first-year Cobra

Jets, only 171 came together in San Jose. The northeast assembly plant at Metuchen, New Jersey, built none.

Lou Costabile My Car Story - Mustang

Specs...

- 428 cubic inch Super Cobra Jet engine
- 410 horsepower
- Drag pack
- Ram air induction
- 3.91:1 ratio rear end



## <u>Rick DeBruhl Commentary -</u> "Is the Cobra Jet Mustang the fastest car of 1968?"



## 1990 Ford NASCAR "Baby Ruth Car" (\*)

In 1990, Bill Davis Racing built a NASCAR Bush Grand National Ford Thunderbird race car that ultimately became known as the "Baby Ruth Car." The car was driven by Jeff Gordon during the 1991 and 1992 seasons. At the wheel of the car, Gordon finished 11th overall in standings during his first full NASCAR season and received Rookie of the Year honors.

A four-time Winston Cup champion, Gordon is currently an announcer for Fox NASCAR and a top executive for Hendrick Motorsports. Gordon completed three career Grand Slams and won a total of sixteen "Crown Jewel races" (Daytona 500, Talladega 500, Coca-Cola 600, and Southern 500) - both accomplishments are alltime records. He is third on the alltime Cup wins list with 93 career wins, while holding the record for the most wins in NASCAR's modern era. Gordon was inducted into the NASCAR Hall of Fame in 2019.

Our founder Mel Martin purchased the "Baby Ruth Car" in 2002 at a classic car auction in Scottsdale. The vehicle — which is signed by Gordon — was certified to be authentic as raced with the original engine and driveline and it remains that way today. Mel donated the car to the museum bearing his name.







The Specs...

- Highly modified V-6 engine
- 700 horsepower
- 4-speed transmission
- Roll cage
- Steel NASCAR wheels



## Lou Costabile My Car Story - Baby Ruth

DU PAGING ING. 301 OLD THOMASVILLE RD. + MIGH POINT, NC 27280-8190 PHONE (910) 887-2220 + FAX (910) 887-2200 9 January 1997	
8	The Baby Ruth Car
<text><text><text><text><text></text></text></text></text></text>	<ul> <li>The year was 1990, Bill Davis Racing started to build a NASCAR Bush Grand National Ford Thunderbird race car that ultimately became know as "The Baby Ruth Car" driven by Jeff Gordon during the 1991 &amp; 1992 NASCAR Bush Grand National Season.</li> <li>With Jeff Gordon at the wheel of "The Baby Ruth Car" he finished 11<sup>th</sup> overall in standings during his first full NASCAR season and received the NASCAR-Vortex Comics Rookie-of-the –Year honors at the end of the 1991 season.</li> <li>Jeff Gordon was born on August 4, 1971 in Vallejo, California, on his 16<sup>th</sup> birthday he was the youngest driver ever to be granted a USAC license. In USAC Gordon produced 22 wins, 21 fast times, 55 top-five and 66-top-ten efforts in 93 starts over four years in four different USAC divisions. He was also the youngest champion of the Midget (1990) and Silver Crown (1991) Divisions.</li> <li>Mel Martin purchased "The Baby Ruth Car" during a classic car auction he was attending in Scottsdale, Arizona in early 2002. At the time, the vehicle was certified to be authentic as raced with the original engine and driveline and it remains that way today.</li> </ul>
	Melvín R. Martín Auto Collection







### Revision May 20, 2025 rev U 1995 Ford Mustang Cobra Hardtop SVT Convertible (\*)

By 1995, Ford's Special Vehicle Team (SVT) and its products had proven to be an unqualified success. This rare Mustang SVT Cobra is a great example of the team's design efforts.

There were 5,008 SVT Cobras built in 1995. The Cobra convertible returned for a limited production run of 1,003 units, and all were painted Black and fitted with Saddle leather interiors and Black convertible tops. Newly available for the 1995 Cobra convertible was a removable hardtop option. This was a oneyear-only option due to its \$1,825 price and 90 pounds of additional weight; thus, only 499 of the Cobra convertibles came with this option. Removing or installing the hardtop was a two-person job, and this hardtop could not easily fit any other **Mustang or Cobra** convertible from this vintage due to the latching mechanisms of the fiberglass top and


the dome light wiring. Included with this option, was a carrier that rolled on four casters allowing for storage of the hardtop when it was not being used. This hardtop option was originally supposed to be an available option for the all-new 1994 Mustang convertible, but it was delayed due to supply problems and quality control concerns. This hardtop option was not available on the 1995 Mustang GT convertible. As the one and only year of the convertible hardtop experiment, these cars are considered by many collectors to be among the most desirable SVT Cobras ever made.

This rare vehicle is #393 of the SVT Cobra convertibles built in 1995 and #34 of the 499 Mustang Cobras with the removable hardtop option.

The Specs...

- 90-degree, overhead valve Windsor V-8 engine
- 240 horsepower
- 5-speed Borg-Warner transmission with phosphate coated gears
- Traction-Loc rear axle with a 3.08:1 final drive ratio
- 48,000 original miles

**VIN = 1FALP45D8SF193287:** 

**1** = Country Code – United States

**FA = Manufacturer - Ford Motor Company** 

L = Restraint System - Active safety belts with airbags

**P** = Vehicle type - Passenger vehicle

45 = Body Style - GT/Cobra convertible

D = Engine - 5.0 L V8, OHV EFI, Horsepower: 240 hp (179 kW; 243 PS) at

- 4,800 rpm, Torque: 285 lb·ft (386 N·m) at 4,000 rpm
- 8 = Check digit Varies per VIN
- **S** = Model year 1995
- F = Assembly plant Dearborn, Michigan
- **193287 = Serial number**

# **2002 Ford Thunderbird**

The Ford Thunderbird - also known as a T-Bird - is a personal luxury car produced by Ford from model years 1955 until 1997 and 2002 until 2005 across 11 distinct generations. Introduced as a twoseat convertible, the Thunderbird was produced in a variety of body configurations. These included a four-seat hardtop coupe, four-seat convertible, five-seat convertible and hardtop, four-door pillared hardtop sedan, six-passenger



hardtop coupe, and five-passenger pillared coupe, with the final generation designed again as a two-seat convertible.

Approximately 38,000 Cutlass Coupes were built in 1972 and sold originally for about \$3,000.

After a five-year hiatus between 1997 and 1992, Ford introduced the 2002 Thunderbird. Returning to the original formula for the Thunderbird, the latest version had a two-passenger convertible/removable hardtop configuration like the first-generation Thunderbird and styling strongly recalling the original.

Though the Thunderbird's exterior styling was unique relative to the others, the instrument panel, steering wheel, and other trim pieces were borrowed from Lincoln LS. The sole engine of the Thunderbird was a Jaguar-designed AJ-30 3.9-liter V-8, a short-stroke variant of the Jaguar AJ-26 4.0-liter V8. With sales dropping off significantly after the 2002 model year, Ford ended Thunderbird production with the 2005 model year. The last Thunderbird was manufactured on July 1, 2005.

Specs...

- 3.9-liter V-8 engine
- 252 horsepower
- 5-speed automatic transmission
- 107-inch wheelbase

# 1965 Shelby AC Cobra MK III (\*)

This car is very special to museum founder Mel Martin. It has only six original miles and the dash was signed by the legendary car designer Carroll Shelby (January 11, 1923 - May 10, 2012). The AC Cobra was designed by Shelby to race. He wanted it to be a "Corvette-beater" and it did just that. In 1963, at Riverside International Raceway, Shelby's car outran an impressive field of Corvettes, Jaguars, Porsches, and Maserati's to give the Cobra its first win.



Shelby was an American automotive designer, race driver, and entrepreneur. In addition to the AC Cobra, he is also known for his involvement with the Ford Mustang, which he modified during the late 1960s and early 2000s.

He established Shelby American Inc. in 1962 to manufacture and market performance vehicles, as well as Carroll Shelby Licensing in 1988, which grew into Carroll Shelby International.

A chapter in Shelby's remarkable life is told in the 2019 movie, Ford v Ferrari, starring Matt Damon (Shelby) and Christian Bale (driver Ken Miles). In the movie, Shelby and Miles "battle corporate interference, the laws of physics and their own personal demons to build a revolutionary race car for Ford and challenge Ferrari at the 24 Hours of Le Mans in 1966" something that most racing "experts" of the day thought was impossible.



### The Specs...

- Production: 1965 to 1967
- 56 of the 100 planned were produce d of those, 31 were unsold competition models and were detuned and fitted with windscreens for street use.
- Assembly: Los Angeles, CA Shelby America, Inc.
- Engine: Ford 427 engine
- Power: 500 horsepower
- Transmission: 4-speed manual
- Brakes: 4-wheel disc
- Top speed: 164 miles per hour

# Lou Costabile My Car Story #1





Lou Costabile My Car Story #2

	A A A A A A A
Bull Marky 98	CHERPY AMERICAN, INC STATEMENT OF ORIGIN FOR A CSX4000 SERIES COMPONENT VEHICLE The undersigned authorized representative of Shelby American, Inc. hereby and components listed on invoice, and described below, is the property of Shelby American, Inc. and has been transferred on the date hereof to the following purchase: Imps A. Wallics Jr.
1965 SHELBY COBRA 427 1Vin #:CSX 4205	P.O. Box 5848 Incline Village, NV 89450 Date: November 22, 2002 Invoice No.: 0205
This Shelby Cobra 427 (CSX 4000 series) was built by Shelby America, Inc. in 1965. For the first seven years it remained in the personal collection of Carroll Shelby.	Trade Name: Shelby Cobra 427 Series: CSX4000 Model Year: 1965 Body Type: 2 Dr. Roadster Chassis No.: CSX4205 The CSX4000 Series Component Vehicle is sold by Shelby American Inc. vibul enrifte or transmission.
Mr. Shelby sold it in November 2002 to a private collector who lived in Incline Village, Nevada where it remained until January 2004 when Mel Martin purchased this rare Cobra with '6' documented original miles on it during a collector car auction in Scottsdale Arizona.	Shefby American, Inc. further certifies that this was the first transfer of such new C3X4000 Series Component Vehicle in ordinary trade and commerce. Shefby American, Inc. By Automative GAtherized Representative 6755 Speedway Boulevand Law Vegas, Nevada 89115
Carroll Shelby was present during the sale and had signed the dash on this vehicle.	Jan and a start

# 1928 Graham Tow Truck (\*)

The Graham tow truck was one of the many makes and models of tow trucks that our founder Mel Martin used in his business (M&M Garage) over the years. This Graham truck was purchased in Prescott and custom painted to look like one of the first tow trucks that he operated.

Mel started his business at the age of 17 in Mayer, Arizona, in 1947. The Graham truck could tow a vehicle at up to 60 mph. Mel noted "the Sherriff always seemed to know" when he and his truck were coming down the dirt road. Frame-off restoration

The 1928 Graham Brothers tow truck represents a fascinating chapter in early automotive and commercial vehicle history. The Graham Brothers, originally known for manufacturing kits for converting Model T chassis



into trucks, entered the commercial vehicle market in the 1910s. By 1921, they began producing complete trucks using Dodge engines and other components, solidifying a partnership with Dodge. This relationship culminated in Dodge Brothers acquiring the Graham Brothers truck division in 1926, and by 1928, these vehicles were branded under Dodge.

The 1928 Graham Brothers tow truck was likely powered by a robust Dodge flathead inline-6 engine, a reliable powerplant for the era, with a displacement around 208 cubic inches and producing approximately 35-40 horsepower. It featured a sturdy steel ladder-frame chassis and leaf-spring suspension to handle heavy-duty tasks. Equipped with solid rubber or early pneumatic tires, the tow truck's design prioritized durability and function over comfort. The vehicle's towing mechanism was manually operated or used a mechanical winch, mounted on the rear bed. These trucks were essential for roadside assistance during an era when automotive reliability was still improving.

With its utilitarian design and historical significance, the 1928 Graham Brothers tow truck is a testament to early innovation in the automotive and towing industries. Its rugged construction and association with Dodge make it a notable piece of motoring history, valued by collectors and vintage vehicle enthusiasts alike.

Specs...

- 4-speed transmission
- Mirror finish medium blue paint with black fenders
- New black leatherette interior
- Red cast wheels
- Tow truck bed with hand crank Weaver winch and tow hoist
- 6-cylinder engine
- Dual door mirrors
- Folding light bar

## Revision May 20, 2025 rev U 1994 Harley Davidson Softail Arizona Diamondbacks Custom

What was once Bob Brenly's 1994 **Harley Davidson Softail Custom Bike** has been transformed into the Base Runner, a brand-new bike, built by Liquid Cycle **Designs and Tim** Gerdl. With more than 250 hours of custom craftsmanship, the bike was hand stripped and customized into a one-of-a-kind masterpiece celebrating the Arizona **Diamondbacks and 2001 World Series Manager Bob Brenly.** The 'Base **Runner' has distinct** baseball features including a seat constructed from an authentic MLB base and a gameused catcher's mask. It has been



exceptionally hand-painted by Jeff Needham including iconic Arizona sights and colors, Louisville Slugger wood bats, snakeskin effects, and team branding logos.

Our founder and Chairman, Mel Martin, purchased this one-of-akind motorcycle at the 2021 Arizona Diamondbacks Evening "On The Diamond" charity auction.

The proceeds from the event benefit the Arizona Diamondbacks Foundation.

Since 1997, the Foundation has raised and donated more than \$75 million benefitting those in need in Arizona communities. The 2021 Evening "On The Diamond" alone raised \$3.4 million for programs to enhance the communities of Arizona. <text>

Specs...

- Lower center of gravity for better handling
- Machined heads (.030)
- New beehive valve springs
- Cylinders were diamond honed and piston rings hand filed
- Fueling 515 cam
- Short exhaust headers

## Revision May 20, 2025 rev U 2000 Harley Davidson Electra Glide Classic (\*)

The Harley-Davidson Electra Glide Classic is a legendary model in the world of touring motorcycles. Its' long history and reputation for comfort, style, and reliability have made it a favorite among motorcycle enthusiasts.

Introduced in 1965 the Electra Glide was the first Harley-Davidson to feature an electric starter. It replaced the previous "Duo-Glide" model and became part of Harley's touring lineup. The model initially came equipped with the 1200cc Panhead engine, later replaced by the Shovelhead engine. Over the years, the Electra Glide has undergone numerous updates and iterations:



- 1969: Introduction of the batwing fairing, providing enhanced wind protection and distinctive styling.
- 1978: Introduction of the Tour Glide variant, which had a frame-mounted fairing.
- 1980s: Development of the Evolution engine and refinements to comfort and handling.
- 1999: Addition of fuel injection and updates to the Twin Cam engine.
- 2000s: Advanced touring features like improved audio systems, GPS, and more storage capacity.

The Classic is a mid-tier version of the Electra Glide, focusing on a balance of comfort, features, and affordability compared to the Ultra Classic or Standard versions. It retains the traditional Harley styling while offering advanced touring amenities.

The 2000 Harley-Davidson Electra Glide Classic is a pivotal model year that introduced significant updates, including the debut of the Twin Cam 88 ci engine, marking a new era for Harley-Davidson touring bikes. This engine replaced the Evolution (Evo) V-Twin and brought improved performance, durability, and smoother operation. Key advancements included dual camshafts, a stronger bottom end, and enhanced cooling for extended touring reliability. Improved Touring Platform. Harley refined the frame, suspension, and braking system to better handle the increased power of the Twin Cam 88 engine.

The Electra Glide Classic maintained its balance of classic styling and modern touring capabilities.

**Options on this Harley:** 

- Fuel injection
- Road pegs
- Road lights
- Windshield
- Three-wheel kit by voyager (Training wheels)
- Queen seat
- Trunk
- Air ride rear suspension
- Air ride seats
- Stereo sound system

Factory Specs...

# **Engine**

- Type: Twin Cam 88 V-Twin.
- Displacement: 1,450cc (88 cubic inches).
- Cooling: Air-cooled.
- Bore x Stroke: 3.75 in x 4.00 in (95.25 mm x 101.6 mm).
- Compression Ratio: 8.9:1.
- Fuel delivery: Carbureted (Keihin CV).
- Optional: Electronic Fuel Injection (EFI).
- Power: ~67 horsepower (varies with EFI or carburetor).
- Torque: ~78 lb-ft @ ~3,500 RPM.

# **Transmission**

- Type: 5-speed manual.
- Final Drive: Belt.

# <u>Chassis</u>

- Frame: High-strength steel frame for better rigidity.
- Front Suspension: 41mm telescopic forks with ~5 inches of travel.
- Rear Suspension: Dual adjustable shocks with ~3 inches of travel.
- Brakes:
- Front: Dual 11.5-inch disc brakes.
- Rear: Single 11.5-inch disc brake.

- ABS: Not available in this model year.
- **Dimensions and Capacities**
- Fuel Capacity: 5 gallons (18.9 liters).
- Seat Height: ~28 inches (laden).
- Wheelbase: 63.5 inches.
- Dry Weight: ~780 lbs.
- Running Weight: ~820 lbs.

# Wheels and Tires

- Front Wheel: 16-inch with MT90-16 tire.
- Rear Wheel: 16-inch with MT90-16 tire.
- Material: Laced steel wheels (cast aluminum optional).

# **Touring Comfort**

- Large touring saddle with passenger backrest.
- Full-length rider and passenger floorboards.
- Detachable batwing fairing for wind protection.

# Storage

- Lockable hard saddlebags.
- Optional King Tour-Pak trunk with integrated passenger backrest. Instrumentation and Technology
- Analog speedometer, tachometer, and auxiliary gauges.
- Standard AM/FM radio with optional CB radio and intercom system.
- Optional cruise control for enhanced touring comfort. Styling
- Traditional Harley-Davidson styling with chrome accents.
- Available in multiple two-tone paint schemes.

The 2000 Harley-Davidson Electra Glide Classic is remembered for ushering in the Twin Cam era, which continued to define Harley's touring lineup for many years. It combined modern engineering with the timeless look and feel of Harley-Davidson, making it a favorite among riders who valued both tradition and innovation.

# **1948 Hudson Commodore Convertible**

Tom and Gayle Broadbent were the proud owners of a fully restored 1948 Hudson Commodore convertible. They decided to share this beautiful car with other admirers of autos of the past; and have chosen the Martin Auto Museum to facilitate the sharing. They felt the Martin Auto Museum would provide the opportunity for many people to enjoy the car, so they to donated this beautiful car to the Museum.

Tom Broadbent bought the car in 1971. He was delighted to use it as his primary source of transportation for three years. Then he married Gayle and lost the first claim on the car. From then on Gayle had the privileged to drive it for the next twenty years, until they decided to restore the convertible to its original glory. Due to finances and time requirements, that turned out to be a project of many years. Finally, the restoration was complete in 2023, with the help of Bill Schoonover, a master mechanic who was willing to tackle any project no matter how daunting.

The car was shown at the Pagosa Springs Car Show in June of 2024. It was awarded Best Original Restoration, and was thoroughly







appreciated by the crowds that came to admire the many cars displayed. It was here at that show that they decided to find a venue to display the convertible to those who would appreciate the beauty from the past. Several months later Bill Schoonover, Tom and Gayle's wonderful friend and master mechanic passed to the next life. This is when they decided to make their car gift to the Martin Auto Museum "in memory of Bill Schoonover". He had a passion for old cars with a history and the skill to make them "like new". He shared their love for this magnificent car.

Thank you, Tom and Gayle for sharing the beauty of old things with those who marvel at and enjoy these pieces from the past. We are honored that they chose our museum to display their wonderful car among other beautiful autos on displays here and to share this car with our visiting guest here in Arizona and from around the world.

## FROM TOM BROADBENT:

"A very little bit on the engine. It is impressive and I'm not even a fan of engines. Tom had taken the engine out when he stripped the body for painting. He put it in our truck and we hauled it to a place not far from Phoenix. The man who rebuilt it had 6 or 8 Hudsons in various state of repair in a large yard. He also had 2 parrots in a cage in his workshop and several dogs. It was on a very rural road. I have no paperwork nor any idea how much Tom paid him. I believe it was a substantial amount. We returned to his place to reclaim the engine several months later. Bill and Tom placed it in the car's engine place.

The original interior pieces (dash, trim, etc.) were shipped to a person in Vermont who was supposed to restore them like new. Tom emailed him often for progress reports, and was told time and time again that our parts would soon be ready to ship. Two years later they "would soon be ready". Tom went to Vermont to collect the trim pieces, found the man's home and demanded his parts. He was told they would soon be ready. At that point he went to the county sheriff and recruited a deputy to accompany him to reclaim the pieces. He was told by the sheriff that others before him had requested their services in similar fashion. They knew the man. They knew his reputation. A deputy went with him and the man relinquished the parts. Tom boxed them and shipped them home and found an artist outside of Durango who restored them. His trip took a week and cost several thousand dollars; and he felt it was time and money well spent.

It was shortly after the Vermont adventure that Tom began to suspect he had the same Alzheimer's disease his father and brother had. A neurologist confirmed our fears. His long-time friend, Bill Schoonover, assured him that together they could finish the project Tom had dreamed of for so many years. And they did. Fifty years of dreams came true for Tom. And me. God intended that Tom would see his beloved car restored to its original beauty. We are grateful to God, to Bill.

(Bill died in December, 2024.) He, like us, are delighted that our car can be shared with others who enjoy the beauty of old automobiles. "

Shine on, beautiful Hudson!

#### Revision May 20, 2025 rev U HISTORY

Hudson developed a new and radical car design. Production of the 1948 Hudsons began on 12 October 1947. Introduced on 7 December 1947, the Hudson Commodore was one of the first new-design postwar cars made. The 1948 model year inaugurated Hudson's trademarked "Monobuilt" construction or "step-down" automobile. The new cars were designed by Frank Spring and in part by Betty Thatcher, the first female designer to be employed by a car manufacturer. The marketing tagline for the innovative Hudsons was "Now You're Face to Face with Tomorrow."

The cars had a light and strong semi-unit body with a perimeter frame. Because of the encircling frame, passengers stepped down into the vehicles. Hudson's step-down design made the body lower than contemporary cars. It offered passengers the protection of being surrounded by the car's chassis with a lower center of gravity. In addition to the safety of being surrounded by the car's chassis, the step-down also allowed Hudson to achieve weight savings through the unibody construction, making for a well-performing automobile. The "monobuilt" or "step-down design also required less steel for its production.

The cars featured slab-sided bodies with fully integrated fenders. The Brougham and sedans were of a fastback design, while convertibles and coupes were notchbacks. A character line ran from the front to back further lowering the car even more visually, so "the new Hudson looked like a dream car straight from the auto show."

In 1948, Commodores came in one series and were available in either I6 or optional I8 engines. Interiors were upholstered in broadcloth on sedans, and leather on convertibles. Again, Hudson continued to provide numerous standard features that other manufacturers classified as upcharge options. Not only were the 1948 models "truly significant new designs of the early postwar years. The "Step-Down" Hudson was low and sleek, which many consumers really enjoyed." Total Commodore production was 62,474 of which 35,315 were I8 (in-line 8) units.

Specs...

- Cost about \$3,057 in 1948 (equal to \$40,295 in 2025)
- 262 ci (4.3L) Flathead Inline 6 Cylinder Engine, 6.5:1 Compression, Carter 2-barrel carburetor
- Bore: 3.5625 in (90.49 mm) Stroke: 4.375 in (111.13 mm)

- 121 hp @4,000 rpm, 200 lb-ft @1,600 rpm, Maximum rpm: About 4,500 rpm
- 3 speed manual, 4.10:1 axle ratio (4.30 or 4.56 available)
- ~3,800-3,900 lb (1,723-1,401 kg) curb weight
- Performance (Stock, estimated, 4.10 ratio):
- 0-60 mph: 17.5 seconds
- 1/4 mile: 21.1 seconds @65 mph
- Top speed: ~90 mph (145 kph) (with 4.10 ratio, would be lower with 4.3 or 4.56 ratios)

Features...

- Step-down perimeter frame, semi-unitized body (allows the car to be lighter, safer, and have a lower center of gravity)
- Hydraulic brakes, with mechanical backup if hydraulics fail
- Push button starter on the dash
- Heating and ventilation
- Radio
- Clock
- Dual glove compartments
- Power convertible top
- Cable driven windshield wipers, driven by one electric motor

Modifications:

- Two 1-barrel carburetors (Called "Twin H Power" by Hudson, not available until 1952)
- Original engine appears to have been replaced by a later 308 ci (5.05L) Hudson Inline 6 (~160 hp with dual carburetors), looks almost identical externally.
- This car has been restored, and as a result some of the bolts and wiring have been updated with modern parts.

# **1956 Hudson Hornet Custom 8 Hollywood Hardtop**

The Hudson Hornet was manufactured by Hudson Motor Car Company of Detroit, Michigan from 1951 until 1954, and from 1955 through 1957 by AMC, when Nash-Kelvinator and Hudson merged to form American Motors Corporation (AMC). Hudson automobiles continued to be marketed under the Hudson brand name through 1957.

For the 1956 model year, AMC executives decided to give the Hudson more character and the design for the vehicles was given over to Richard Arbib, who provided the Hornet with one of the more distinctive looks in the 1950s. Taking the traditional Hudson tri-angle, Arbib applied its "V" form in every conceivable manner across the interior and exterior of the car. Combined with tri-tone paint combinations, Hudson's look was unique and immediately noticeable.

Probably the best-known Hudson Hornet is the animated 1951 Hudson Hornet based on the real-life Fabulous Hudson Hornets from NASCAR Grand National Series and AAA stock car racing. Although Our Hudson Hollywood Hardtop is not the same as depicted in the movie "Cars" it is simitar.









Lou Costabile Youtube "My Car Story" on this Hudson

## Specs...

- Cost about \$3,429 in 1956 (equal to \$40,048 in 2025)
- \*352 ci (5.8L) Packard OHV 90° V8 Engine, 9.55:1 Compression, Carter 2barrel carburetor
- Bore: 4 in (101.6 mm) Stroke: 3.5 in (88.9 mm)
- 220 hp @4,600 rpm, 320 lb-ft @2,350 rpm, Maximum rpm: About 5,000 rpm
- 2 speed Packard "Ultramatic" transmission, 3.50:1 axle ratio
- ~3,900-4,000 lb (1,769-1,814 kg) curb weight
- Performance (Estimated):
- 0-60 mph: 10.1 seconds
- 1/4 mile: 17.9 seconds @76 mph
- Top speed: 106 mph (171 kph)

## **Features:**

- Power steering and brakes
- Combination shift/starter lever (lift the shift lever to start the car)
- Radio
- Electric clock
- "Weather Eye" heating and ventilation system
- Day/night mirror
- Reclining front seats (can recline all the way back, combining with the rear seats to make a bed)

\*Early 1956 V8 Hudson's used a Packard engine, late 1956 and later Hudson's switched to the new 250 ci AMC V8

### Revision May 20, 2025 rev U 1930 International Six-Speed Special Truck

The International Six-Speed Special was a 1-ton truck built by the International Harvester Corporation between 1928 and 1930 in Springfield, Ohio. International had not had a 1-ton truck in its line since the "S" model of 1926. This gap was filled in 1928 with the "Six-Speed Special". The new truck was like the <sup>3</sup>/<sub>4</sub>-ton Special Delivery, but it had a bigger frame and larger tires.

The most notable feature of the Six-Speed Special was the Eaton 2-speed rear axle which, when combined with the 3-speed transmission, gave a total of 6 forward gears and 2 in reverse. The Six-Speed Special was an instant hit and more than 14,000 trucks were built the first year, accounting for about 40 percent of International's total production for the year. The Six-Speed Special was moved by the underpowered but economical Waukesha XA L-head 4-cylinder engine. It had a top speed of 35 miles-per-hour.

Specs...

- 173 cubic-inch inline 4-cylinder engine
- 30 horsepower
- 3-speed manual transmission
- 124-inch wheelbase-inch wheelbase
- Pistone wed win double bench seats for parades
- Radiator cap temperature gauge



# 2005 Jaguar XK8 Convertible

The Jaguar XK is a two-door 2+2 grand tourer manufactured and marketed by Jaguar Cars from 1996–2012 and by Jaguar Land Rover from 2013–2014 in hatchback coupé and convertible body styles, across two generations. The XK was introduced at the Geneva Motor Show in March 1996 and was discontinued in July 2014.

The first generation was marketed as the XK8, replacing the XJS and was Jaguar's first 8-cylinder model since the Daimler 250, introducing the all-new Jaguar AJ-V8 engine. The XK8 shared its platform with the Aston Martin DB7 which was itself based on the stillborn XJ41/42 project built on a modified XJ-S chassis conceived in the mid-1980s. The second generation of the XK, noted for its aluminiummonocoque chassis and





construction, was launched in 2006 for the 2007 model year. The XKR performance variant was introduced in both of the generations with the second generation also offering a more powerful XKR-S variant.

The XK8 (1996–2006) was launched in 1996 to replace the <u>XJS</u> designed by then Jaguar design director Geoff Lawson. It was available in two body styles – a two-door coupé and two-door convertible with both variations featuring 2+2 seating. The car was the first in the Jaguar line-up to use Jaguar's newly developed 32-valve V8 engine – the AJ-V8 which had a displacement of 4.0 liters.

The XK8 was joined by a more powerful XKR in 1998. The XKR featured a supercharged variation of the V8 engine rated at 276 kW (375 PS; 370 hp). The engine was shared with the <u>XJR</u> but featured a new intercooler and a two-piece driveshaft. The supercharger was manufactured by Eaton and displaced at 2.0 litres. It generated 11.9 pounds of boost pressure to contribute to the higher power output. Visual differences from the XK8 included a rear spoiler, mesh front grille and hood louvres on the bonnet for improved airflow to the engine.

The XK8 came standard with 17-inch alloy wheels, while 18-inch (standard on the XKR), 19-inch, and 20-inch wheels were available for the XK8 and XKR at an additional cost. Jaguar's Adaptive Cruise Control is an optional feature available on both models. Both models came with all-leather interior, burl walnut trim, and side airbags. Two interior configurations were offered, the sport configuration was aimed at young buyers and had a leather interior with cloth seats while the classic trim featured more amenities.

The XK range received a mechanical update in 2002 with the engines in both the XK8 and XKR models being enlarged to 4.2 liters and gaining more power, the front headlamps were also updated by the addition of a clear lens. Further changes included new exterior colors and wheels along with different badging. The models were revised again in spring 2004 and notable changes included new wheel designs, bigger front and rear spoilers and a redesigned grille.

Initially, the ZF 5HP24 five-speed automatic transmission was coupled to the conventionally aspirated 4.0-litre model and a Mercedes W5A580 fivespeed transmission to the supercharged version, but in 2002 the new ZF 6HP26 six-speed automatic transmission was fitted in both versions of the 4.2-litre model.

Specs...

- 4.2-liter V-8 engine
- 294 horsepower
- 6-speed automatic transmission with overdrive
- 101.9-inch wheelbase
- Original price of \$74,830

# 2011 Jaguar XJ-L Supercharged

The Jaguar XJ is a series of full-size luxury cars produced by British automobile manufacturer Jaguar Cars (becoming Jaguar Land Rover in 2013) from 1968 to 2019. It was produced across five basic platform generations (debuting in 1968, 1986, 1994, 2003 and 2009) with various updated derivatives of each. From 1970 it was Jaguar's flagship four-door model. The original model was the last Jaguar saloon to have had the input of Sir William Lyons, the company's founder, and the model has been featured in countless media and high-profile appearances.

In July 2009, the redesigned XJ was unveiled at the Saatchi Gallery in London, with Jay Leno and Elle Macpherson unveiling the new car. The unveiling was broadcast live on the Jaguar website. In keeping with Ian Callum's new design direction for Jaguar, the XJ has an all-new exterior design and a break from the XJ Series. It is a longer, wider car that is much bigger than its predecessor.

Supercharged XJ models come with Jaguar's Active Dynamics system, which continuously adjusts the suspension settings through electronically controlled dampers. The XI's structure is still aluminum, and Jaguar claims body roll has been reduced by some 20 percent.







## Specs...

- Supercharged 5.0-liter V-8 engine
- 470 horsepower
- 6-speed shiftable automatic transmission
- 0-60 mph in 4,4 seconds
- 124.3-inch wheelbase
- Only 15,128 XJs sold worldwide in 2011
- Original price of \$90,500



### Revision May 20, 2025 rev U 1934, 1947, 1950 John Deere & Farmall Tractors

During the 1930s, 1940s, and 1950s, John Deere and Farmall (a brand of International Harvester) were two of the most influential tractor manufacturers in American agriculture. John Deere, originally a plow manufacturer, introduced its first successful tractor, the Model D, in 1923, but it was the two-cylinder "Johnny Poppers" of the 1930ssuch as the Model A and B—that cemented its reputation. These tractors, known for their distinctive sound and durability, helped mechanize farms across the country. In the 1940s, John Deere continued to innovate with models like the Styled A and B, improving ergonomics and efficiency. By the 1950s, the company introduced its first diesel tractors, such as the Model 720, further increasing power and fuel efficiency.

Farmall, a brand under International Harvester, revolutionized farming with the introduction of the Farmall Regular in 1924, the first widely successful row-crop tractor. In the 1930s, the updated Farmall F-Series (F-12, F-20, and F-30) allowed farmers to replace horses entirely. During the 1940s, the company launched the famous Farmall Letter Series (A, B, C, H, and M), with the Farmall H and M becoming iconic workhorses of American agriculture. These tractors featured innovative, easy-to-use designs that helped farmers adapt to the growing mechanization of agriculture. By the 1950s, the Super Series







(Super A, Super C, Super H, and Super M) refined these designs, leading to increased horsepower and improved hydraulics. Farmall continued to push innovation, introducing new models that set the stage for modern agricultural machinery. Both John Deere and Farmall played crucial roles in transforming farming, making it more efficient and productive. Their tractors from these decades remain highly sought after by collectors and enthusiasts today.

# **1951 Kaiser Special Sedan**

Kaiser Motors (formerly Kaiser-Frazer) Corporation made automobiles at Willow Run, Michigan, from 1945 to 1953. In 1953, Kaiser merged with Willys-**Overland to form Willys Motors** Incorporated, moving its production operations to the Willys plant at Toledo, Ohio. They continued to build automobiles in Toledo under the Kaiser margue until 1955, but **South American operations** continued to build cars well up into the 1960s. The company changed its name to Kaiser Jeep Corporation in 1963.

From the first year of a dramatic restyling that would endure for the rest of Kaiser's automaking history, this 1951 Kaiser Special is one of 38,078 four-door sedans produced that year in the entry-level model range. This Special was in the same family since new, with Caribbean



Coral Iridescent paint that is believed to be original. The car still bears access stickers from the Air Force base where the seller's father served as an officer.

The original engine in this Kaiser still runs and has only 60,450 original miles.

Notes from the sale of this car:

From the first year of a dramatic restyling that would endure for the rest of Kaiser's automaking history, this 1951 Kaiser Special is one of 38,078 fourdoor sedans produced that year in the entry-level model range. This Special is described as having been in the same family since new, with paint that is believed to be original, and having never been smoked in and garaged most of its life, when not in use. The car still bears access stickers from the Air Force base where the seller's father served as an officer.

## Specs...

- 226 cubic-inch straight 6-cylinder engine
- 115 horsepower
- 3-speed manual transmission
- 118-inch wheelbase
- Base price of \$2,212

## POWERTRAIN

This Special is powered by the Continental-designed Kaiser 226-cu.in. Lhead straight-six. With a Carter WGD two-barrel carburetor and a compression ratio of 7.3:1, the engine was rated by the manufacturer at 115 horsepower when new. The engine in this Special is said to be original to the car, with no known rebuild history, but the water pump was recently replaced. It's said to start at once following two pumps of the accelerator. The seller reports that the three-speed manual transmission shifts smoothly, and he notes weeps around the oil pan and fuel tank drain plug. The engine bay presents as being stock and acceptably clean, in the provided photographs.

## **EXTERIOR**

The seller believes this Kaiser's paint to be original, with some scratches, chips, and two small dents noted, but he adds that it has been successfully cleaned of oxidation and waxed. The body seals are said to be original and to allow slight leaks. The seller reports no rust on the body, stating that corrosion is limited to the undercarriage with no structural issues or rust-throughs. The car is being offered with additional pieces of trim, including chrome caps for beneath the window openings. The trim presents as being in good, unrestored condition, in the photos. The glass is believed to be original and is reported to be in good shape, except for one cracked rear window. All the exterior lighting is described as functional. The underside appears to be generally clean, with surface corrosion on some components visible in the photos.

## INTERIOR

The cloth upholstery is reported to be in "very good" condition, with no visible tears or indications of soiling. The carpeting has no reported holes, but a worn area on the passenger's side is noted. The original headliner is reported to be sag-free, with a stain from a possible water leak near the windshield noted. The dashboard looks to be in excellent original condition, with no apparent missing trim. The instrumentation, including the factory

AM radio, is reported to be functional, except for the fuel gauge. The heater is said to be operable. The trunk presents as being generally clean with an apparently solid floor.

## CHASSIS

The date of the Kaiser's most recent chassis service is unknown. The seller reports no visible component damage and no leaks from the shock absorbers. The seller says the manual drum brakes were disassembled with the wheel cylinders honed and cleaned. The master cylinder is reported to have been recently rebuilt, with no functional braking issues. The original wheels, with original hubcaps, are said to be mounted tires of unknown age.

### DOCUMENTATION

The seller states that this vehicle will be sold on a clean New Mexico title in his name. Additional documentation includes the original owner's manual, bill of sale, and finance booklet. This 1951 Kaiser Special, from the first year of its final landmark look, is described as a strongly original example.

VEHICLE LOCATION: Alamogordo, New Mexico VIN: K511037198 ODOMETER: 60,450

# 1970 Kaiser DJ-5 mail truck (\*)

The Jeep DJ (also known as the Dispatcher) is a two-wheel drive variant of the four-wheel drive CJ series. Production started in 1955 by Willys, which was renamed Kaiser Jeep in 1963. In 1970, American Motors Corporation (AMC) purchased Kaiser's money-losing Jeep operations and established AM General, a wholly owned subsidiary that built the DJ through 1984.

The 1970 Kaiser mail truck, also known as the Jeep DJ-5, is a light utility vehicle designed for postal delivery services. Here is a brief history of this vehicle:

**Origins and Development** 

- 1955-1970: Early Models and Kaiser Acquisition
- The DJ series (Dispatcher Jeep) started in 1955 with the DJ-3A, based on the CJ-3A but with twowheel drive.



**Features and Specifications** 

- Design and Usage
- The DJ-5 was specifically designed for postal service use with a righthand drive layout, allowing easy access to roadside mailboxes.
- It featured a simple, utilitarian design suitable for the rigors of daily mail delivery.
- The body was constructed for durability and ease of maintenance, which was essential for the heavy-duty usage expected by postal services.
- Engine and Performance





- Early models, including the 1970 DJ-5, were equipped with various engines over the years, ranging from the Willys Hurricane inline-4 to the AMC inline-6.
- The 1970 model commonly used the AMC 232 cubic inch inline-6 engine.
- These vehicles had automatic transmissions and a two-wheel-drive configuration.

**Production and Service** 

- 1970-1984: Kaiser and American Motors Corporation (AMC)
- Kaiser Jeep produced the DJ-5 until 1970, after which the company was acquired by AMC.
- AMC continued the production of the DJ-5, making improvements and updates, until 1984.
- The DJ-5 was a staple in the U.S. Postal Service fleet, known for its reliability and ease of use.

## Legacy

- Longevity and Replacement
- The DJ-5 remained a common sight in postal fleets throughout the 1970s and early 1980s.
- It was eventually replaced by more modern vehicles, but it left a lasting legacy as a rugged and dependable workhorse.
- Many DJ-5s have been preserved by enthusiasts and can still be found in various conditions, from restored show vehicles to operational work trucks.

The 1970 Kaiser mail truck, or Jeep DJ-5, represents an important chapter in the history of postal service vehicles. Its robust design and reliable performance made it a favorite for mail carriers, and its influence can still be seen in modern postal delivery vehicles.

# **1925 Lincoln Model L**

The 1925 Lincoln Model L is a classic luxury car produced by the Lincoln Motor Company, known for its craftsmanship and engineering. Greta Garbo standing next to a 1925 Lincoln Model L. It captures the elegance and timeless beauty of both the car and the actress.





Specifications of the 1925 Lincoln Model L:

**Engine:** 

- 5.8-liter (358 cu in) V8 engine.
- It produced approximately 90 horsepower, which was significant for the time.

Transmission:

• 3-speed manual transmission.

**Body Styles:** 

- The Model L came in various body styles including a Touring car, Roadster, Sedan, Limousine, and Phaeton.
- Custom coachwork was often available, provided by companies like LeBaron, Judkins, and Brunn.

**Chassis:** 

- Steel ladder frame with a rigid axle and semi-elliptic leaf springs front and rear.
- The car featured four-wheel drum brakes, which were advanced for the time.

**Top Speed:** 

• The Model L could reach a top speed of approximately 75 mph.

## **Price:**

• In 1925, prices for the Lincoln Model L ranged from about \$4,000 to \$7,000, depending on the body style and coachbuilder. It was marketed as a luxury vehicle aimed at wealthy clientele.

# Features:

- The Model L was known for its smooth ride and superior build quality.
- The interior was spacious, often featuring plush upholstery and high-end materials.
- The car was marketed as a competitor to luxury brands like Cadillac and Packard.

# Early years (1917–1930)

The Lincoln Motor Company was founded in August 1917 by Henry Leland and his son Wilfred. Among the founders of Cadillac, Leland had sold Cadillac to General Motors in 1909; staying on as an executive, he left in 1917 over a dispute with GM President William Durant regarding war production.

Leland named Lincoln Motor Company after Abraham Lincoln, stating that Lincoln was the first President for whom he ever voted (1864). The company was financed by securing a \$10 million contract to produce Liberty V12 aircraft engines (\$237,818,182 in 2023 dollars for use during World War I. The Lelands broke ground on the Lincoln Motor Company Plant in Detroit. Lincoln Motor Company acted as the final assembly point for the engines, with the company securing parts from other manufacturers; cylinders were produced by Ford, with other parts sourced from Buick, Cadillac, Marmon, and Packard. In total, Lincoln Motor Company would assemble 6,500 Liberty V12 engines by the end of World War I concluding production; by the end of the war, Lincoln would employ 6,000 workers.

On January 26, 1920, Lincoln Motor Company was reorganized as an automobile manufacturer, retooling its Detroit factory to produce automobiles. On September 16, 1920, Lincoln Motor Company produced its first automobile, the Lincoln Model L. Lincoln Motor Company had struggled with the transition from military to automobile production, with some customers having to wait nearly a year for their vehicles to be completed from the time of purchase. By 1922, the company was on the verge of bankruptcy and was placed in receivership.

Under the influence of Edsel Ford, Lincoln Motor Company was purchased by Henry Ford for \$8 million (\$145,622,266 in 2023 dollars on February 4, 1922. While Lincoln was valued at \$16 million, a \$5 million bid by Ford was the sole bid received for the company (forced to be increased by the court).

## **Purchase by Ford Motor Company**

Following the purchase of Lincoln Motor Company by Ford Motor Company, Henry and Wilfred Leland remained at the company, with Edsel Ford given responsibility over it. While Ford had sought to expand its model range beyond the Ford Model T, the purchase of Lincoln held a degree of personal value, as the owners of Lincoln developed an automobile company from one that Henry Ford had been forced from. In 1902, a group of investors (led by Leland) forced Henry Ford from his second company, the Henry Ford Company; the company was reorganized as Cadillac (deriving its name from the

founder of Detroit). With the exception of the engine, the 1903 Ford Model A and the 1903 Cadillac Model A share nearly the same design.

Prior to the introduction of the Model T, Ford designed several higher-priced vehicles, including the 1904 Ford Model B, the 1905 Ford Model F, and the 1906 Ford Model K. Following its organization in 1908, General Motors began a rapid expansion of its automotive brands; by 1920, GM would outnumber Ford five to one. The purchase of Lincoln created a stand-alone luxury vehicle brand for Ford as Cadillac did for GM. Within the first few months, relations between Ford Motor Company and Lincoln management began to break down; on June 10, 1922, the Lelands were forced to resign. As Edsel Ford began to take a senior role in the management of Lincoln, multiple changes were made to both the Model L and its production. The Lincoln factory was redesigned and expanded (to nearly 1,000,000 square feet), with the components of the engine upgraded for increased reliability and performance.

At its introduction, the Lincoln Model L gained a reputation for conservative (to the point of outdated) design. As a response, Edsel Ford introduced the Model L for 1923 in a custom-bodied form directly from Lincoln; in line with a Duesenberg or a Rolls-Royce, customers could also purchase a Model L with coach built bodywork.

For 1923, Lincoln produced 7,875 cars (nearly 45% higher than in 1922). After struggling to deliver cars before 1922, Lincoln was operating at a profit by the end of 1923.

In 1924, a Lincoln Model L became the first state limousine used by a U.S. President on an official basis, supplied for Calvin Coolidge.

By 1930, Lincoln had succeeded in only a decade in what its chief competitors had taken 30 years to accomplish. Serving as a direct competitor to Cadillac, the Model L had become equal to vehicles from established American brands including Duesenberg, Marmon, Packard, Peerless, and Pierce-Arrow.

# **1977 Lincoln Continental Mark V**

The Continental Mark V is a personal luxury coupe that was marketed by the Lincoln division of Ford Motor Company from the 1977 to 1979 model years in North America. The fourth generation Mark series - the Mark V - was derived from its Continental Mark IV predecessor, bringing an extensive update to the interior and exterior design. While only sold for three years, the Mark V is the best-selling generation of the Mark series, with 228,262 produced.

At 230 inches long, the Mark V is the largest two-door coupe ever sold by Ford Motor Company, with the 233-inch long two-door and four-door Lincoln Continental sedans produced alongside it as the only longer vehicle ever marketed by Ford. Distinguished by its sharp-edged exterior design, design themes of the Mark V would be adapted onto Lincoln vehicles throughout the 1980s. For 1980, the Mark V was replaced by the Continental Mark VI. As the Mark series underwent downsizing in the interest of fuel economy, the Mark VI saw significant reductions in exterior dimensions.



All Continental Mark Vs were assembled alongside the Lincoln Continental at the now-closed Wixom Assembly Plant in Wixom, Michigan.

Specs...

- 460 cubic-inch, V-8 engine
- 208 horsepower
- 3-speed Ford C6 automatic transmission
- Motorcraft 4350 four-barrel carburetor
- 120.4-inch wheelbase
- Total 1977 sales of 80,321 cars the most for the Lincoln brand that year

- Starting price of more than \$11,000
- Only 466 original miles on this car!
- this car!

**Features:** 

- 460 ci v8 (400 ci (6.6L) was standard)
- Power steering and brakes (4-wheel disk brakes)
- Aluminum Wheels
- Rear sway bar
- Energy absorbing 5 mph bumpers
- Electric power windows, locks and seats (controls are on the doors)
- Tilt steering wheel
- Air conditioning
- Cruise control (buttons on steering wheel)
- AM/FM Radio with 8-track player (power antenna as well)
- Hood ornament folds down to prevent damage

Auction	Scottsdale 2015 Lot #1681
Reserve	NO RESERVE
Status	Sold
Price	\$35,200.00
Lot	1681
Year	1977
Make	LINCOLN
Model	CONTINENTAL MARK II
Style	2 DOOR COUPE

## Revision May 20, 2025 rev U 1947 McCormick Farmall BN Culti-Vision Tractor

Farmall was a model name and later a brand name for tractors manufactured by International Harvester. The Farmall name was usually presented as McCormick-Deering Farmall and later McCormick Farmall in the evolving brand architecture of International Harvester.

Farmalls were general-purpose tractors. Their origins were as row-crop tractors, a category that they helped establish and in which they long held a large market share. During the decades of Farmall production (1920s to 1980s), most Farmalls were built for row-crop work, but many orchard, fairway, and other variants were also built. Most Farmalls were all-purpose tractors that were affordable for small to medium-sized family farms and could do enough of the tasks needed on the farm that the need for hired hands





was reduced and the need for horses or mules was eliminated. Thus, Farmall was a prominent brand in the 20th-century trend toward the mechanization of agriculture in the US.

The McCormick-Deering Farmall BN was a narrow McCormick-Deering Farmall B, with shorter axle shafts to reduce the rear tread. The Farmall BN was produced between 1941 and 1947.

Specs...

- Factory: Tractor Works, Chicago, Illinois,
- International 113 cubic-inch, 4-cylinder gas engine
- Sliding gear transmission

# **1950 McCormick Farmall Tractor Model H**

The Farmall Tractor Model H was manufactured in Rock Island, Illinois, between 1939 and 1953. There were 391,227 Model H tractors produced over 14 years and the original price was approximately \$2,000. It is the row-crop version of the McCormick-Deering W-4 tractor.

**NOTE:** Farmall is part of International Harvester.

Specs...

- International Harvester C-152 4-cylinder engine
- 24 horsepower
- 5-speed transmission
- Liquid cooled
- Total weight of 3,875 pounds


# **1910 Maxwell Model AA Runabout**

Although the company's cars are seldom seen today, Maxwell was a significant manufacturer of the early 20th century and was the first quality produced car to use drive shaft instead of chains. The twincylinder Maxwell runabouts were popular due to their competitive price tag and durable engines.

Maxwell cars earned a solid reputation through performances in many reliability tours. In fact, Maxwell was one of the first car companies to market specifically to women. In 1909, it generated a great deal of publicity when it sponsored Alice Huyler Ramsey, an early advocate of women drivers, as the first woman to drive coastto-coast across the United States, (an unheard-of event prior to that time). By 1914, the company had strongly aligned itself with the women's rights movement. In 1910, Maxwell ranked third in U.S. sales behind Ford and Buick.

Maxwell eventually over-extended and wound up deeply in debt, with over half of its production unsold in the post-World War I recession in 1920. The following year, Walter P. Chrysler arranged to take a controlling interest in Maxwell Motors, subsequently re-incorporating it in West Virginia with himself as the chairman. One of his first tasks was to correct the faults in the Maxwell, whose quality had faltered. This improved version of the car was marketed as the "good Maxwell".

Around the time of Chrysler's takeover, Maxwell was also in the process of merging, awkwardly at best, with the



ailing Chalmers Automobile Company. Chalmers ceased production in late 1923.

Comedian Jack Benny made the Maxwell a household name when he used the car as a comedic prop on his popular radio and TV shows from the 1930s until the 1960s. He and Maxwell also gained exposure in commercials.

Specs...

- 2-cylinder L-head engine
- Rear-wheel drive
- 14 horsepower
- Original price was \$600

### **1946 Mercury Eight Coupe Custom (\*)** From the Alexander Orzechowski Collection

The Mercury Eight is an automobile that was marketed by the Mercury division of Ford between 1939 and 1951. The debut model line of the Mercury division, Ford slotted the full-size Mercury Eight between the Ford Deluxe (later Custom) model lines and the Lincoln. In total, Ford assembled three generations of the Eight (before and after World War II).



During its production, the Eight offered a full range of body styles, including coupes, sedans, convertibles, and station wagons. For its first generation, the Eight was produced with its own body, adapting its own version of a Ford body for its second generation; for the third generation, the Eight shared its body with the Lincoln.

The 1946 Mercury Eight Coupe was part of the second generation of Mercury Eight models produced between 1941 and 1948.

This 1946 Mercury Eight was fully customized by local auto builder and collector Alexander "Ski" Orzechowski. In addition to a spectacular paint job and custom interior, this car has shaved door handles and antenna, custom taillights, aftermarket air conditioning, Budnik wheels, and other modern touches. The original car had a 239 cubic-inch flathead engine that was replaced a modern drivetrain that includes a 350 cubic-inch V-8 "small block" Chevy engine.

Specs...

- 350 cubic-inch V-8 Chevy engine
- Approximately 300 horsepower
- 3-speed automatic transmission
- 118-inch wheelbase
- From the Alexander Orzechowski Collection

### Revision May 20, 2025 rev U 1951 Mercury Woody Wagon 3rd Generation (\*)

The 1951 Mercury Woody Wagon was one of five variants of the Mercury Eight offered at the time; the coupe, convertible, sedan, station wagon and woody station wagon.

Hollywood also has a fondness for the Mercury Eight, as it can be found in such movies as Rebel Without a Cause, American Graffiti, Thunderbolt and Lightfoot, and Grease.

The 1951 models would prove to be the most popular with more than 300,000 cars sold, including only 3,812 station wagons. This would be the last Ford-produced station wagon that would qualify as a real Woody.

For 1949, Mercury introduced its first postwar model line. The first Mercury of the combined Lincoln-Mercury Division, the Mercury Eight now shared its body with the Lincoln (instead of the Ford).





Keeping its 118-inch wheelbase, the Mercury was sized between its two divisional counterparts. In place of the updated prewar body, Mercury adopted a "pontoon" body, ending the use of running boards entirely, along with separate fenders. The 239 ci Flathead V8 was carried over, producing more power than in its Ford counterpart.

In a change to the model line, the four-door station wagon was replaced by a two-door model; the design of the wagon body structure had shifted to steel, relegating wood to body paneling (still manufactured at the Ford Iron Mountain Plant). An 8 tube AM radio was introduced as an option; full instrumentation was added to the dashboard. A new overdrive system was optional, activated by a handle under the dash.

The shift of the Mercury to the Lincoln body proved successful; alongside its Ford counterpart, Mercury broke sales records for 1949.

For 1950, the Monterey name made its first appearance, as Mercury introduced a high-end two-door coupe, similar to the Ford Crestliner, Lincoln Lido, and Lincoln Cosmopolitan Capri; the Monterey was intended to compete against the two-door hardtop coupes introduced by General Motors in 1949. The front suspension was independent with stabilizer bars.

For 1952, as Mercury redesigned its model line, the Monterey was established as a stand-alone nameplate, with Mercury renaming the Eight as the Mercury Custom.

The Specs...

- 350 cubic-inch V-8 engine
- 3-speed automatic transmission
- Resto-mod
- Wood side panels are original
- Power steering and power brakes
- Dakota digital gauges
- 10-bolt Chevy rear end

# **1954 Mercury M-100** This rare and unique resto-mod truck was donated to the museum by its founder, Mel Martin.

The Mercury M series is a series of pickup trucks that was marketed by the Mercury division of Ford Motor Company. Produced from 1946 to 1968, the Mercury M series was sold primarily in Canada, as a rebadged version of the Ford F series.

This highly customized truck is one of a kind. More than \$170,000 was invested in the custom build, with approximately \$60,000 in chrome — including every nut and bolt. The roof was chopped 2 inches and cab windows etched. It also has a unique plexiglass truck bed that allows you to see the many of the custom details.



#### Specs...

- Ford 390 cubic inch engine
- 300 horsepower
- C6 automatic transmission
- California black cherry paint
- Louvered hood, tailgate, and step boards

# **1971 MG MGB GT Coupe**

**Development of the MGB started at least** as early as 1958 with the prototype known by its Abingdon codename; MG EX205. In structure the car was a progressive, modern design in 1962, using a unitary structure, instead of the traditional body-on-frame construction used on both the MGA and MG T-types and the MGB's rival, the Triumph TR series. However, components such as brakes and suspension were developments of the earlier 1955 MGA, with the B-Series engine having its origins in 1947. The lightweight design reduced manufacturing costs while adding to overall vehicle strength. Wind-up windows were standard, and a comfortable driver's compartment offered plenty of legroom. A parcel shelf was fitted behind the seats.

The MGB achieved a 0–60 mph (97 km/h) time of just over 11 seconds. The threebearing 1,798 cc B-Series engine produced 95 hp (71 kW) at 5,400 rpm – upgraded in October 1964 to a five-bearing crankshaft. From 1975, US-market MGB engines were de-tuned to meet emission standards, ride height was increased by an inch (25 mm), and distinctive rubber bumpers were fitted to meet bumper standards.

The MGB was one of the first cars to feature controlled crumple zones designed to protect the driver and passenger in a 30 mph (48 km/h) impact with an

immovable barrier (200 ton). Nevertheless, the British AA motoring association has described the car, like many other classic models, as much less safe than modern cars. The issue received public attention following a





2013 case in which a driver in a hired 1963 MGB was killed in a collision with a taxi.

A limited production of 2,000 units of the RV8 was produced by Rover in the 1990s. Despite the similarity in appearance to the roadster, the RV8 had less than 5% parts interchangeability with the original car.

The MGB remains a popular choice for collectors due to inexpensive and readily available parts and simple mechanics.

The fixed-roof MGB GT was introduced in October 1965. Production continued until 1980, although export to the US ceased in 1974. The MGB GT sported a ground-breaking greenhouse design that launched the sporty "hatchback" style.

By combining the sloping rear window with the rear deck lid, the GT offered the utility of a station wagon while retaining the style and shape of a coupe.

This new configuration was a 2+2 design with a right-angled rear bench seat and far more luggage space than in the roadster. Relatively few components differed, although the MGB GT did receive different suspension springs and anti-roll bars and a different windscreen which was more easily and inexpensively serviceable.

Although acceleration of the 1971 GT was slightly slower than that of the roadster due to its increased weight, top speed improved by 5 miles per hour to 105 miles per hour because of better aerodynamics.

Specs...

- 109.8 cubic-inch inline 4-cylinder engine
- 92 horsepower
- 4-speed manual transmission
- 59.9-inch wheelbase
- Original price of \$11,495

#### **Rick DeBruhl Commentary - "MGB GT and the British Invasion"**



# 1970 Northrup T-38 Custom "Mini Jet"

This is the newest edition to diverse collection at the Martin Auto Museum and Event Center and is certain to be a favorite of our young visitors. This original miniature jet was 1 of 2 built by the US Air Force in the early 1970s as a recruiting tool. It is modeled on the Northrop T-38 two-seat twinjet supersonic jet trainer and is made of sheet metal. This custom mini jet also bears the USAF Thunderbird #2 badging and livery.

The full-size T-38 Talon entered service in 1961 as the world's first supersonic trainer, and many of the 1,180 jets that were built remain in service today. More than 72,000 Air Force pilots have flown the T-38 since the 1960s.





Glendale Major drove this in the Christmas Parade.

Our founder and Chairman Mel Martin (and one-time licensed pilot)

purchased this unique mini jet at Mecum Auction in Glendale in 2022. The proceeds benefited the Mini Jet Air Force, a nonprofit organization whose mission is to take Mini Jets to children who are fighting Cancer, Leukemia or have Down Syndrome, Autism, or physical disabilities.

Specs...

- Working 5 horsepower overhead valve engine
- Wings fold for transport
- Only 1 of 2 known to exist



#### Revision May 20, 2025 rev U 1972 Oldsmobile Cutlass Coupe "442 W30 Tribute" 2nd Gen.

The Oldsmobile Cutlass was a series of automobiles produced by General Motors' Oldsmobile division between 1961 and 1999. At its introduction, the Cutlass was Oldsmobile's entry-level model. It began as a unibody compact car, but saw its greatest success as a body-on-frame intermediate. The Cutlass was named after the type of sword, which was common during the Age of Sail.

Third generation 1968 - 1972

298,881 Cutlass were built in 1972 and sold originally for between \$3,000 and \$4,500 depending on options and trim.

1972 was the only year in which the Cutlass Supreme notchback hardtop could be equipped with the L75 455 and M20 four speed transmission, and only 77 of these cars were produced. All 1972 L75

455/M20 cars used the larger 2.07 valves and the W30 automatic camshaft. This gave the L75 455/M20 cars 270 net horsepower, as opposed to the TH400 automatic-equipped L75 cars, which produced 250 net horsepower.

The 1972 Hurst/Olds was based on the Supreme two-door hardtop and convertible, powered by both versions of the 455 Rocket offered on the 4-4-2 (4 barrel carb, 4 speed manual, dual exhaust), along with a Turbo 400 transmission with Hurst Dual/Gate shifter. The H/O convertible also served as the Indianapolis 500 Pace Car in 1972.

1972 was also the final year for Olds to offer the Cutlass Supreme convertible, until 1990. In its final year, it was the best-selling convertible in the U.S., with 11,571 sold, or 16% of the market, beating



the Eldorado and Corvette. From 1973 to 1975, the only Oldsmobile convertible offered was the fullsized Delta 88 Royale.

This is a 442 W30 Tribute car. In other words, it is closer a standard 1972 Oldsmobile Cutlass that was painted and badged to look like a 442 W30.



Specs...

- 350 cubic-inch V-8 engine
- 180 horsepower
- 3-speed automatic transmission
- 112-inch wheelbase

# **1929 Packard Coupe (***in the garage***)**

### Needs write up

Specs...



The Packard Twelfth Series One-Twenty is an automobile produced by the Packard Motor Car Company of Detroit, Michigan, from 1935 to 1937 and from 1939 through the 1941 model years. The One-Twenty model designation was derived from the wheelbase, and it was replaced by the Packard 200.

The One-Twenty signified the first time that Packard had entered into the highly competitive mid-priced eight-cylinder car market. Packard enthusiasts view the production of the One-Twenty and the Six/One-Ten models as the start of Packard's losing its hold on the market as the premier American luxury automotive brand. It was a marketing strategy shared with GM's LaSalle, the Chrysler Airstream, and the Lincoln-Zephyr. It was introduced after Rolls-Royce brought to market the Rolls-Royce Twenty, which was manufactured between 1922 and 1929 (succeeded by the Rolls-Royce 20/25 which was built until 1936).



The introduction of the One-Twenty (and later the Six/One-Ten models) was a necessary move to keep Packard in business during the final years of the Great Depression, expanding on an earlier approach with the Packard Light Eight. Branding the One-Twenty a Packard afforded buyers the cachet of owning a Packard. Other reasons the company decided to forgo the development of a companion brand name to sell the less expensive models may have been linked to its single production line capability at its Grand Boulevard manufacturing plant or to the expense of launching a new brand of automobile. It also ushered in a novel advertising approach, commissioning an advertising "jingle" called "When Heaven Was at the Corner of Sycamore and Main".

In its introduction year, the Packard One-Twenty was available in a broad array of body styles including two and four-door sedans, convertible and

Club Coupe. The One-Twenty, weighing in at 3,688 lb. (1,673 kg), was powered by an all-new Packard aluminum-head L-headinline eight producing 110 bhp (82 kW) at 3850 rpm. Prices ranged from \$980 (\$21,779 in 2023 dollars) for the three-passenger business coupe to \$1,095 (\$24,335 in 2023 dollars) for the Touring Sedan. Introduced in January 1935, the car was an immediate success with consumers, with Packard producing 24,995 One-Twentys, compared to 7,000 of all other type Packards for the year, while competing with the 1935 LaSalle Series 50.

For 1936 Packard increased the displacement on the L-head eight, increasing its output to 120 bhp (89 kW), making the car capable of reaching a top speed of 85 mph (137 km/h). The One-Twenty added a convertible four-door-sedan model which was the most expensive model in the range priced at \$1,395 (\$31,002 in 2023 dollars). A total 55,042 units rolled off the line in 1936, the highest production that the One-Twenty would reach. A built-in radio was available at a cost of \$59.50 (\$1,311 in 2023 dollars).

Specs...

- Engine, 1970-73 400 4 bolt main block.
- Heads, camel hump heads.
- Breaker point distributor.
- Carburetor, Holley spread bore double pumper (unknown cfm)
- Transmission, Turbo 400
- Custom driveshaft to a stock 36 Packard rear axle assembly and leaf springs.
- Stock 36 Packard front and rear.
- Front, independent with coil springs, and unequal length control arms.
- Rear, parallel leaf springs under a live axle.
- Brakes, front disc's adapted to the 36 Packard spindles and hubs. Rear drums appear to be stock 36 Packard.
- Steering, GM, Saginaw rear steer power steering box, ited to the 36 Packard front steering pitman arms and tie rods.

#### Revision May 20, 2025 rev U 1938 Packard Six Touring Sedan 1600 Series

Entering the 1930s, Packard attempted to beat the stock market crash and subsequent Great Depression by manufacturing ever more opulent and expensive cars than it had prior to October 1929, and began offering different platforms that focused on different price points allowing the company to offer more products and remain competitive. While the Eight five-seater sedan had been the company's top-seller for years, the Twin Six, designed by Chief engineer Jesse G. Vincent, was introduced for 1932, with prices starting at US\$3,650 (equivalent to \$84,000 in 2024) in 1933, it would be renamed the Packard Twelve, a name it retained for the remainder of its run (through 1939). Also in 1931, Packard pioneered a system it called Ride Control, which made the hydraulic shock absorbers adjustable from within the car. For one year only, 1932, Packard fielded an uppermedium-priced car, the Light Eight, at a base price of \$1,750 (equivalent to \$40,000 in 2024), or \$735 (equivalent to \$17,000 in 2024) less than the Standard Eight.

Packard rivals Cadillac and Lincoln benefited from the huge support structure of GM and Ford. Packard could not match the two new automotive giants for resources. The 1920s had proven extremely profitable







for the company and it had assets of approximately \$20 million in 1932 (\$461 million in 2024 dollars) while many luxury car manufacturers were

almost broke. Peerless ceased production in 1932, converting the Cleveland manufacturing plant automobile production to brewing for Carling Black Label Beer. By 1938, Franklin, Marmon, Ruxton, Stearns-Knight, Stutz, Duesenberg, and Pierce-Arrow had all closed.

Packard had one advantage that some other luxury automakers did not: a single production line. By maintaining a single line and interchangeability between models, Packard was able to maintain low costs. Packard did not change models as often as other manufacturers. Rather than introducing new models annually, Packard began using its own "Series" formula for differentiating its model changeovers in 1923 borrowing a strategy from GM called planned obsolescence. The new model series did not debut on a strictly annual basis, with some series lasting nearly two years, and others lasting as brief as seven months. In the long run, Packard averaged approximately one new series per year. By 1930, Packard automobiles were considered part of its Seventh Series. By 1942, Packard was in its Twentieth Series. The "Thirteenth Series" was omitted due to the western superstition about the number 13.

Packard was still the premier luxury automobile, even though the majority of cars being built were the Packard One-Twenty and Super Eight model ranges. Hoping to catch still more of the market, Packard issued the Packard 115C in 1937, powered by a Packard six-cylinder engine. The decision to introduce the "Packard Six", priced at around \$1200 (equivalent to \$26,000 in 2024), was in time for the 1938 recession. This model also tagged Packards as something less exclusive than they had been in the public's mind and in the long run hurt Packard's reputation of building some of America's finest luxury cars. The Six, redesignated 110 in 1940–41, continued for three years after the war.

In 1939, Packard introduced Econo-Drive, a kind of overdrive, claimed able to reduce engine speed 27.8%; it could be engaged at any speed over 30 mph (48 km/h). The same year, the company introduced a fifth, transverse shock absorber and made column shift (known as Handishift) available on the 120 and Six.

During this time, Packards were built in Windsor, Ontario by the Packard Motor Company of Canada to benefit from Imperial Preference as well as to build right-hand-drive cars for export. Production started in 1931, with the best year being 1937, with just over 2,500 cars built. Parts manufactured in Canada included tires, upholstery, radiator cores, headlamps, springs, and wheels, while the engines were locally assembled. Production ended in

1939, although the company maintained an office in Windsor for many years.

Specs...

- 245 cubic-inch inline 6-cylinder engine
- 100 horsepower
- 3-speed manual transmission
- 122-inch wheelbase

# 1941 Packard 110 Special Coupe (\*)

The Packard Eighteenth Series 110 was a range of six-cylinder automobiles produced by the Packard Motor Car Company of Detroit, Michigan during the 1940 and 1941 model years. The 110 designation was renamed from the previous Packard Fifteenth Series 6. The 110 shared the wheelbase of the 120 but was given the 110 designations to indicate it was the entry level product.

Critics of the Packard 6 and 110 have long maintained they hurt Packard's reputation of being America's premier luxury car maker. Still, the reintroduction of the Model 6 could not have come at a better time for the automaker, just prior to the nation's 1938 economic depression. By offering the less expensive model, the company was able to attract buyers who would otherwise be unable to purchase more expensive cars. Prices ranged from \$867 for the Business Coupe to \$1,200 for the Station Wagon.

Built on a shorter wheelbase than prior models, the 110 was introduced in August

1939. The 110 was available in a broad range of body styles, including both two and four-door sedans, station wagon and convertible. The shortened hood louvers doubled as hood releases, and the runningboards were now optional equipment, as







were two-tone paint schemes, air conditioning, radio, and heater.

The 110 remained the most popular (and affordable) model in the Packard lineup, with 34,700 sold in 1941.

In reality the 1941 Packard 110 Special Coupe stood out from its competitors in the \$1,000 to \$1,075 price range due to a combination of engineering, design, and value that blended Packard's reputation for quality

with affordability. Here's how it differentiated itself from key rivals like the Buick Special 8, Hudson Commodore 8, Chrysler Royal 6, and Pontiac Streamliner 8.

- 1. Engine and Performance: The Packard 110 Special Coupe was powered by a 245-cubic-inch L-head inline-six engine producing 100 horsepower. While this wasn't the most powerful in its class—competitors like the Buick Special 8 offered an inline-eight with more power—the Packard's engine was noted for its simplicity and reliability. Its lightweight construction (around 3,300 lbs) allowed for "powerful performance" with "reasonable economy," as highlighted by Consumers Union Reports, giving it an edge in fuel efficiency over heavier competitors.
- 2. Ride Quality and Suspension: The Packard featured an independent "Safe-T-Flex" front suspension, a significant advantage over many rivals that still used solid axles. This, paired with four-wheel hydraulic brakes, provided "excellent riding qualities" and superior handling. Competitors like the Chrysler Royal 6 had hydraulic brakes but lacked the same level of suspension refinement, while the Pontiac Streamliner 8 offered a smooth ride but didn't match Packard's engineering pedigree.
- 3. Build Quality and Design: Packard's reputation for luxury trickled down to the 110, even in its entry-level form. The Special Coupe boasted an all-steel body, a sleek design with integrated headlights, and a tall, distinctive radiator grille flanked by vertical side grilles—styling cues that echoed Packard's upscale models. In contrast, the Hudson Commodore 8 had a more utilitarian look, and the Buick Special 8, while stylish, didn't carry the same prestige. The Packard's interior, though simpler than its senior models, still offered quality materials and optional features like a radio, heater, and even air conditioning—rare for this price point.
- 4. Value and Pricing: Priced between \$867 and \$1,200 depending on the body style, the 110 Special Coupe was competitively positioned. Consumers Union rated it the "best buy" in its class for 1941, praising its combination of performance, economy, and ride quality over the Buick, Hudson, Chrysler, and Pontiac alternatives. The optional overdrive, which improved highway efficiency, was another differentiator, making it "preferable" to similarly equipped competitors.
- 5. Versatility and Options: The 110 lineup, including the Special Coupe, offered a broad range of body styles and trim levels (like the Deluxe option), appealing to a wider audience than some rivals. While the Chrysler Royal 6 and Pontiac Streamliner 8 had their own strengths in styling and power,

they didn't match Packard's flexibility or the availability of luxury-adjacent features like air conditioning.

In summary, the 1941 Packard 110 Special Coupe distinguished itself with a balance of refined engineering, a smooth and economical ride, and Packard's hallmark quality—all at a price that undercut many competitors while delivering a near-luxury experience. Its recognition as a top value pick underscored its edge in a crowded market.

Specs...

- 245 cubic-inch inline 6-cylinder engine
- 100 horsepower
- 3-speed selective synchromesh transmission
- Semi-automatic clutch
- Hydraulic brakes
- 122-inch wheelbase

### 1950 Packard Deluxe 8 Sedan

Packard was established in 1899 and quickly became known for producing high-quality, luxury vehicles. By the 1920s and 1930s, Packard was synonymous with prestige and innovation. The 1950 Packard Deluxe Eight is a classic American automobile produced by the Packard Motor Car Company, known for its luxury and engineering excellence.

Packard was one of the 'Three P's' of American luxury cars, along with Peerless and Pierce-Arrow. Packard was the only one of the three to survive the Great Depression of the 1930s. By the 1950s, the coachbuilding tradition and made-to-order vehicles of the 1920s and 1930s were replaced by practical factorybuilt cars.

After World War II, like many other manufacturers, Packard resumed civilian automobile production. The 1950 models were part of Packard's efforts to regain its pre-war market position.

Packard had exited World War II in a strong position financially, something that had helped it endure the early-1930s, but it still trailed the Big 3 automakers in styling and design.

Slowly, the company's reputation for building the highest level of luxury vehicles eroded, as jet-aged styling and modern overhead-valve V-8 engines took the market by storm.

Packard responded by introducing all-new sheet metal with designs that briefly even outsold

Cadillac. The Deluxe Eight was introduced as part of Packard's 23rd series







in 1949 and continued into 1950. It was a step above the Standard Eight, offering more luxury features and a more powerful engine.

Most 1950 Packards were built on the Standard and Deluxe Eight line. Above them was the Super Deluxe Eight which found 4,722 sales. The top-of-theline Packard was the Custom Eight Series that found 955 willing buyers, of which 870 were sedans.

The 1950 Packard Deluxe Eight featured a conservative, yet elegant design. It had a long hood, prominent grille, and rounded fenders, characteristic of post-war American cars. The interior was plush, with high-quality materials, spacious seating, and advanced features for its time. It was equipped with a 288 cubic inch (4.7-liter) straight-eight engine, producing around 135 horsepower.



This engine was known for its smooth performance. It had a robust chassis and an independent front suspension, which provided a comfortable ride.

The Deluxe Eight was aimed at the upper-middle class, offering a balance of luxury and performance at a more accessible price point compared to the top-of-the-line Packard models. It was well-received for its build quality, reliability, and comfort. However, by 1950, Packard was facing increased competition from Cadillac and Lincoln, which had more modern designs and V8 engines.

The 1950 Deluxe Eight is considered a classic example of post-war American automotive design. It represents Packard's last successful attempts to maintain its image as a luxury car manufacturer before financial difficulties in the mid-1950s led to its decline and eventual merger with Studebaker in 1954.

Today, the 1950 Packard Deluxe Eight is a sought-after model among classic car enthusiasts. Its timeless design, combined with the prestige of the Packard name, makes it a desirable collectible. Restoring a 1950 Packard Deluxe Eight can be a rewarding project, as parts are relatively available, and the car's engineering allows for relatively straightforward repairs and maintenance. Overall, the 1950 Packard Deluxe Eight is a significant model in automotive history, representing the twilight of Packard's golden era and the challenges faced by luxury automakers in the rapidly evolving post-war market.

Specs...

- 288 cubic-inch inline 8-cylinder engine
- 135 horsepower
- Ultramatic automatic transmission
- 122-inch wheelbase
- Price new \$3,975

# 1953 Packard Model 2679 Convertible

The 1953 Packard Model 2679, known as the Convertible Coupe, was part of Packard's 26th series lineup. This luxury vehicle featured a 2-door convertible body style and was equipped with a rear-wheel-drive (RWD) system.

The 1953 Packard Convertible Coupe was renowned for its blend of luxury and performance. With its powerful straight-eight engine and a suite of optional features, it catered to discerning buyers seeking both style and comfort. The availability of advanced options like power steering, power brakes, and power windows highlighted Packard's commitment to innovation during this era.

This model remains a classic example of early 1950s American automotive design and engineering, reflecting the elegance and sophistication associated with the Packard brand.

Packard was one of the original and greatest of all the American brands. Packard was one of the industry's pioneers, having built it's very first cars as early as 1899. They went on to build some of the world's finest cars ever, surviving two world wars, numerous recessions and one great depression until eventually, as any true enthusiast will attest, the last real Packards were finally built in 1956. After that time, the cars were no longer built in the legendary Detroit plant and the decline had sadly begun.

But until 1956, these cars bristled with the latest in modern appointments and had few rivals in the luxury market making owning one only for the very privileged elite.

This is one of only 1,518 Model 2679 Packard convertibles built in 1953. It has a beautiful Carolina Cream paint crested with Packard's classic chrome sculpted swan hood ornament.

The original price for this car was approximately \$3,500.

The Specs...





**Engine and Performance:** 

- Engine: 327 cubic inch (5,361 cm<sup>3</sup>) inline eight-cylinder
- Horsepower: 180 hp
- Transmission: Standard 3-speed manual; optional Ultramatic automatic transmission
- Acceleration: 0 to 62 mph in approximately 12.4 seconds
- Top Speed: 96 mph

**Dimensions and Weight:** 

- Wheelbase: 122 inches (3,099 mm)
- Length: 213.1 inches (5,413 mm)
- Width: 77.8 inches (1,978 mm)
- Curb Weight: Approximately 3,960 lbs
- **Standard Features:**
- Rear-wheel drive (RWD)
- Manual 3-speed gearbox
- Convertible soft top

**Optional Equipment:** 

- Power Steering: \$195
- Easamatic Power Brakes: \$39
- Push-button radio with manual antenna: \$97
- Push-button radio with electric antenna: \$109
- Signal-seeking radio with manual antenna: \$118
- Signal-seeking radio with electric antenna: \$132
- Rear Compartment Speaker: \$16
- Power Windows and Front Seat: \$153
- Windshield Washers: \$9.40
- Back-up Lights: \$11
- Size 7.60 x 15: \$30
- Size 8.00 x 15: \$33
- Two-Tone Paint: \$20
- Fresh Air Heater and Defroster: \$80
- Tinted Solex Glass: \$45
- Overdrive: \$110
- Ultramatic Automatic Transmission: Standard in Patrician models; optional in others at \$199

**Production and Pricing:** 

- Units Produced: 1,518 Model 2679 Convertibles in 1953
- Base Price: \$3,476 in 1953

# **1928 Plymouth Model Q Deluxe Coupe**

In 1928, Walter P. Chrysler acquired the Dodge Brothers company and launched two entirely new companion lines, the DeSoto and Plymouth. Originally called the

'Chrysler Plymouth' to identify it with Walter Chrysler, the Plymouth Model 'Q replaced the four-cylinder Chrysler as the company's entrylevel price leader.

They were fitted with a threespeed manual gearbox and hydraulic drum brakes in both the front and rear.

The Plymouth marque provided Chrysler with a vessel that could compete head-to-head with Ford and Chevrolet, marking the creation of the industry's lowpriced three.' The Plymouth's Mayflower sailing ship logo linked the car with the Pilgrims' landing at Plymouth Rock. A thin, ribbon-style radiator shell made the hood look even longer.

Model year production for 1928 reached 66,097 units. The Model Q



was available in seven different body styles that included two roadsters (one with a rumble seat), a DeLuxe Coupe, a tourer, a 2- and 4-door sedan, and a standard coupe. The DeLuxe Coupe was offered in two colors - Russet Brown and Norman Gray.

This restored car is mostly original and was the Best-of-Show at the 1998 San Clemente Car Show.

The Specs...

- 170.3 cubic-inch L-head four-cylinder engine
- 3-speed manual transmission
- 45 horsepower
- 109.8-inch wheelbase
- Original price of \$720



### **1934 Plymouth 2-Door Custom Street Rod (\*)** This vehicle was donated to the Martin Auto Museum by Bobby Martin.

There were 320, 171 Plymouths built in 1934. The original cost of this model was approximately \$600, depending on options and where it was delivered.

An extensive advertising campaign was undertaken for the 1934 Plymouth models and the cars appeared in several movies as well. One such movie was filmed at the Chicago Century of Progress Exposition and featured stunt drivers Barney Oldfield, Billy



Arnold, and Harry Hartz. The movie, entitled Death Cheaters' Holiday, recounted the performances of the trio of drivers who systematically rolled over new Plymouth's all steel bodies.

The 1934 Plymouth 2-Door Coupe is a popular model with custom hot rod builders. This is an excellent example of a custom hot rod.

Specs...

- 350 Chevrolet V-8
- Hydramatic transmission
- Custom interior
- Custom paint
- Carson removable top

### **1949 Plymouth Special De Luxe Convertible**

The Plymouth De Luxe and Special De Luxe were full-sized automobiles which were produced during the 1941-42 and 1946-50 model years. They were produced at the Lynch Road Assembly facility in Highland Park, Michigan. This 1949 Plymouth Special De Luxe convertible is one of 15,240 built that year, evidence of its popularity.

The 1949 Plymouth Special Deluxe Convertible was part of Plymouth's first truly new postwar lineup, introduced in March 1949 as part of the P-18 series. This model marked a significant shift from the prewar designs that had lingered through the immediate postwar years, featuring a restyled body with smoother, less pronounced front fenders that blended into the overall design. The Special Deluxe was the top-tier trim level of the Deluxe line, built on a 118.5inch wheelbase, distinguishing it from the shorter 111-inch wheelbase P-17 series.

The convertible was one of four body styles offered in the Special Deluxe range, alongside the four-door sedan, two-door club coupe, and four-door station wagon. It was powered by a 217.8-cubic-inch inline-six flathead engine, producing 97 horsepower at 3,600 RPM—a modest but reliable powerplant typical of the era's economy







cars. The design prioritized practicality and durability over flash, reflecting Chrysler's conservative approach under the influence of president K.T. Keller, who favored upright, boxy styling to accommodate passengers wearing hats.

Plymouth's 1949 models were a commercial success, with over 508,000 units sold, bolstered by a 47.5% sales increase over 1948. The Special Deluxe Convertible stood out with its upscale features, including stainless steel trim around the windshield and rear window, and a luxurious interior with options like Bedford Cord upholstery paired with vinyl bolsters. Its power-operated top added a touch of modernity, appealing to buyers seeking an affordable yet stylish open-air driving experience. Priced at around \$1,966 (roughly \$24,000 in today's dollars), it competed with the likes of Ford and Chevrolet convertibles, offering a blend of reliability and modest charm that cemented its place in postwar American automotive history.

The engine was built for long life and fuel economy. The dealer brochure for the 1949 Plymouth noted: "...over half of all standard built cars registered as taxicabs are Plymouths!' And this great new Plymouth is built in the same tradition; it's the best of a long line that's always been famous for economy."

Specs...

- Flathead straight six engine
- 97 horsepower
- 3-speed manual transmission with a column-mounted shifter
- Removable zippered rear window for the convertible top

### Revision May 20, 2025 rev U 1970 Plymouth Roadrunner Superbird (\*)



The Plymouth Superbird is a highly modified, short-lived version of the Plymouth Road Runner with well-known

graphics and a distinctive horn sound. Like the 1969 Dodge Charger Daytona, the Superbird was largely designed for stock car racing. Using information garnered from the Daytona's 1969 season in racing, the Superbird incorporated many engineering changes and modifications. Despite the success of the Superbird on the



track, 1970 would be the only year it was made.

Base factory pricing for the Road Runner in 1970 was \$3,024, while the Superbird started at \$4,298.

Specs...

- Engine: 440 cubic inch V-8 (correct coded)
- Power: 375 horsepower
- Transmission: A727 automatic
- Paint: EK2 Vitamin C Orange
- Production: 626 in this configuration

### **Rick DeBruhl Commentary - "This Superbird is Outrageous!"**



A few facts about Richard Petty and Petty Enterprise Richard Petty, one of the most iconic figures in NASCAR history, has an impressive list of race wins throughout his career. He won a total of 200 NASCAR Cup Series races. Some of the notable races he won include:

- 1. Daytona 500: Petty won the Daytona 500 a record seven times in his career (1964, 1966, 1971, 1973, 1974, 1979, 1981).
- 2. Coca-Cola 600: Petty won the Coca-Cola 600, one of NASCAR's premier events, four times (1961, 1975, 1977, 1984).



- 3. Southern 500: He also won the Southern 500 at Darlington Raceway a record four times (1967, 1970, 1971, 1974).
- 4. World 600: Petty secured victories in the World 600 (now the Coca-Cola 600) three times (1975, 1977, 1984).
- 5. Firecracker 400: Petty triumphed in the Firecracker 400 at Daytona International Speedway seven times (1959, 1960, 1962, 1964, 1967, 1973, 1984).

These are just a few highlights from Richard Petty's illustrious career. His 200 Cup Series wins remain a record in NASCAR's top division. Richard Petty did consider leaving Plymouth to drive for Ford in 1969. In 1968, Ford introduced the sleek and aerodynamic Ford Torino Talladega, which was designed specifically for NASCAR racing. Richard Petty was impressed by the performance of the Ford Torino Talladega and expressed interest in driving for Ford.

However, Plymouth recognized the threat of losing one of its most prominent drivers and worked to retain Petty. They developed the Plymouth Superbird, a high-performance version of the Plymouth Road Runner, which featured a distinctive aerodynamic design with a large rear wing and a pointed nose cone. Ultimately, Petty decided to stay with Plymouth after they offered him a lucrative deal to race the Superbird. His decision to remain with Plymouth was influenced by both financial considerations and his loyalty to the brand. Petty's continued success with Plymouth, including winning the 1970 Daytona 500 in a Superbird, further solidified his legacy with the manufacturer.

# 1966 Pontiac LeMans 326 Convertible

The Pontiac LeMans (ləˈmɑːnz) is a model name applied to automobiles marketed by Pontiac. The name came from the French city of Le Mans, the site of the 24 Hours of Le Mans, the world's oldest active sports car endurance race that began in 1923. Originally a trim upgrade package based on the Tempest, the LeMans became a separate model in 1963.

Second generation (1964– 1967)

The pillared 4-door sedan was replaced by a four-door hardtop body style for the 1966 model year.

The GTO became a separate model of its own for the 1966 model year, though retaining the same basic body as the Tempest and LeMans models. For 1966, all GM and Pontiac intermediates featured new styling featuring tunnel



back rooflines on two-door hardtops and pillared coupes. While the GTO continued as a big-engined muscle car, the Tempest and LeMans models got a new SOHC 230 cu in (3.8 L) straight-six as the base engine. This engine, as well as the early Tempest with the transaxle in the rear, were ideas of Pontiac's Chief Engineer John DeLorean, who became Pontiac's general manager at the end of the 1965 model year. This engine was available in a one-barrel carbureted, 165 hp (123 kW) version as standard equipment on all Pontiac intermediates except GTOs. Optional on all Tempest and LeMans models except station wagons was a Sprint package that included a four-barrel version of the I6 that also included a higher compression ratio and

hotter cam, that was rated at 207 hp (154 kW), along with an "all-syncro" floor-mounted three-speed transmission with Hurst shifter, suspension kit, and body striping. Optional were a two-barrel 326 cu in (5.3 L) V8 rated at 250 hp (186 kW) and a 285 hp (213 kW) four-barrel 326 HO V8 that included higher compression ratio and dual exhausts.

Specs...

- 326 cubic-inch V-8 engine
- 250 horsepower
- 2-speed automatic transmission
- 115-inch wheelbase

### **1966 Pontiac GTO 400 Custom (\*)** From the Alexander Orzechowski Collection

The Pontiac GTO is a two-door, four- or five-passenger automobile manufactured and marketed by the Pontiac division of General Motors over four generations from 1963 until 1974. The first generation of the GTO is credited with popularizing the muscle car market segment in the 1960s.



In his autobiography Glory Days, Pontiac chief marketing manager Jim Wangers, who worked for the division's contract advertising and public relations agency, states that John DeLorean, Bill Collins, and Russ Gee were responsible for the GTO's creation. It involved transforming the upcoming second-generation Pontiac Tempest into a sporty car, with a larger 389 cubic-inch Pontiac V-8 engine. By promoting the big-engine option as a special high-performance model, they could appeal to the youth market. Although Pontiac had strenuously promoted the GTO in advertising as the "GTO Tiger," it had become known in the youth market as the "goat."

Sales increased to 96,946 in 1966, the highest production figure for all GTO years. Of those, 73,785 were 2-door hardtops like this car. The GTO was selected as the Motor Trend Car of the Year in 1968.

This 1966 GTO was restored and customized by local car collector Alexander

"Ski" Orzechowski. Improvements include beautiful glossy black paint and matching black-on-black custom interior, custom wheels and tires, racing gauges, Edelbrock heads, and more.

The Specs...

- 400 cubic-inch Pontiac V-8 engine
- Automatic transmission
- 115-inch wheelbase
- From the Alexander Orzechowski Collection

# **1967 Pontiac Firebird Convertible**

The Pontiac Firebird is an American automobile built and produced by Pontiac from the 1967 to 2002 model years.<sup>[1]</sup> Designed as a pony car to compete with the Ford Mustang, it was introduced on February 23, 1967, five months after GM's Chevrolet division's platformsharing Camaro.<sup>[2]</sup> This also coincided with the release of the 1967 Mercury Cougar, Ford's upscale, platform-sharing version of the Mustang.<sup>[3][4]</sup> The name "Firebird" was also previously used by GM for the General Motors Firebird series of concept cars in the 1950s.

The first-generation Firebird had characteristic Coke bottle styling shared with its cousin, the Chevrolet Camaro. Announcing a Pontiac styling trend, the Firebird's bumpers were integrated into the design of the front end, giving it a more streamlined look than the Camaro. The Firebird's rear "slit" taillights were inspired by the 1966-1967 Pontiac GTO and Pontiac Grand Prix. Both a two-door hardtop and a convertible were offered through the 1969 model year. Originally, the car was a "consolation prize" for Pontiac, which had desired to produce a two-seat sports car based on its original Banshee concept car. However, GM feared this would cut into





Chevrolet Corvette sales, and gave Pontiac a piece of the "pony car" market through sharing the F-body platform with Chevrolet. The listed retail price before options for the coupe was \$2,666 (\$25,141 in 2024 dollars) and the convertible was \$2,903 (\$29,432 in 2024 dollars).
### Specs...

- 326 cubic inch (5.3 liter), V-8 engine
- 2-barrel carburetor
- 250 horsepower
- 3-speed transmission

# **<u>Rick DeBruhl Commentary - "This Firebird Pontiac Didn't Want to Build"</u>**



# **1968 Pontiac Firebird Convertible**

The Pontiac Firebird is an American automobile that was built and produced by Pontiac from the 1967 to 2002 model years. Designed as a "pony car" to compete with the Ford Mustang, it was introduced on February 23, 1967, five months after GM's Chevrolet division's platform-sharing Camaro. This also coincided with the release of the 1967 Mercury Cougar, which was Ford's upscale version of the Mustang.

The first-generation (1967-1969) Firebird had characteristic Coke bottle styling shared with its cousin, the Chevrolet **Camaro. Announcing a Pontiac styling** trend, the Firebird's bumpers were integrated into the design of the front end, giving it a more streamlined look than the Camaro. The Firebird's rear "slit" taillights were inspired by the 1966-1967 Pontiac GTO. Both a two-door hardtop and a convertible were offered through the 1969 model year. Originally, the car was a "consolation prize" for Pontiac, which had desired to produce a two-seat sports car based on its original Banshee concept car. However, GM feared this would cut into **Chevrolet Corvette sales, and gave Pontiac** a piece of the "pony car" market through sharing the F-body platform with Chevrolet.



Modifications for 1968 included the addition of federally-mandated side marker lights: for the front of the car, the turn signals were made larger and extended to wrap around the front edges of the car, and on the rear, the Pontiac (V-Shaped) Arrowhead logo was added to each side. The front door vent-windows were replaced with a single pane of glass and Astro Ventilation, a fresh-air-inlet system.

Specs...

• L76 350 cubic-inch H.O. V-8 engine

- 320 horsepower
- 3-speed Turbo-Hydamatic transmission
- 108.1-inch wheelbase
- Only 16,960 Firebird convertibles produced in 1968

# 1988 Pontiac Grand Prix SE (Daytona 500 Pace Car Edition)

The first front-wheel drive W-body Grand Prix coupes were built in October 1987, and released on January 12, 1988, for the 1988 model year. This generation Grand Prix was built in Kansas City, Kansas. The Grand Prix was introduced as base, LE and SE coupes. A five-speed manual or four-speed automatic were the transmissions offered.

SE models upgraded with power front seats with multiple lumbar, side bolsters, side wing adjustments, an AM/FM Cassette stereo, and a trip computer and compass located in the center of the dash. Some models of this generation have the rare feature of a split front bench seat with a column shifter. Another unique feature only found on the Grand Prix is the combination lock for the glove box, rather than a key. The Grand Prix was Motor Trend's Car of the Year for 1988.



The 1988 Daytona 500 marked the 17th year in a row that a Pontiac was chosen to set the pace, but the first time a front-wheel-drive car was so honored. The '88 Grand Prix followed a spate of Pontiac Trans Ams. The pace car is based on that year's top-spec Grand Prix, the SE. In place of the standard car's 2.8-liter V-6, the actual pace car used a modified 3. 1-liter V-6, which was mated to a 5-speed manual transmission.

Besides the debut of the W-body Grand Prix pace car, the 1988 race is also notable for its final lap: Bobby Allison held off his son, Davey Allison, to take the checkered flag, with the father-son duo enjoying a 1-2 finish.

Specs...

- Cost about \$15,000-17,000 in 1988 (equal to \$40,000-46,000 in 2025)
- 173 ci (2.8L) OHV 60° V6 Engine, 8.8:1 Compression, Multi-Port Fuel Injection

- Bore: 3.5 in (88.9 mm) Stroke: 2.99 in (76.2 mm)
- 130 hp @4,500 rpm, 170 lb-ft @3,600 rpm, Maximum rpm: About 6,000 rpm
- 4 speed automatic transaxle, 3.33:1 axle ratio
- 3,300 lb (1,497 kg) curb weight
- Performance (Estimated):
- 0-60 mph: 11.4 seconds
- 1/4 mile: 18.2 seconds @78 mph
- Top speed: 126 mph (202 kph)

## Features:

- Partially digital dash with compass (speedometer, odometer, fuel gauges are digital, tachometer, voltage, oil pressure, and temperature gauges are analog)
- Lighting and trip/odometer controls on the left side of the dash
- Windshield wiper controls on the right side of the dash
- Cruise control
- Door ajar (open) warning light on dash
- Tape player (with storage for 2 tapes, 3 if one is in the player)
- Push button digital radio with mini screen
- Push button A/C system
- Power windows and locks
- Locking glove box, with user settable 3-digit combination
- Overhead storage, with map lights
- Adjustable rear map lights
- Driver's mirror is adjustable from the inside (cable operated)
- 6-way power adjustable front seats (with some controls on the center console)
- Bucket front and rear seats, with a center console/armrest and coin tray between each pair of seats
- Center pass-through to the rear trunk for longer items
- \*This car is not an actual pace car, and was not actually used at Daytona.

# **Rick DeBruhl Commentary - "The Pontiac Grand Prix!"**



# 2000 Pontiac Bonneville Racer

The Bonneville name first appeared in 1954 on a pair of bubble-topped GM Motorama <u>concept</u> <u>cars</u> called the Bonneville Special, sharing an appearance with the Chevrolet Corvette. It was also the beginning of a new tradition of Pontiac vehicles using French words for model names.

The 2000 Bonneville was restyled, using GM's G platform, with the widest overall track in its competitive class at 62.6 in (1,590 mm) up front and 62.1 in (1,580 mm) in the rear. GM's StabiliTrakstability control system was introduced on the top-of-the-line supercharged SSEi model, later replaced by the GXP.

The Bonneville was marketed in three trim levels: SE, SLE and SSEi. The SE came with a 3.8L V6 engine, 4-speed automatic transmission, air conditioning, cruise control, front bucket seats (a 55/45 split front bench was available on the SE only), 6-way power driver seat with lumbar adjustment, AM/FM stereo with CD player and 225/60/R16 tires. The SLE added traction control, OnStar, leatherwrapped steering wheel, rear spoiler and 17inch alloy wheels wrapped in 235/55/R17 tires. The SSEi adds a 3.8L supercharged V6 engine, front-side air bags, leather upholstery, 12-way power driver seat and Monsoon AM/FM stereo with cassette and CD player.

In August of 2001, Pontiac renewed its racing heritage at the famed Bonneville Salt Flats in Utah when a four-door Bonneville powered



through the timing traps at 202.524 miles per hour, making it the first front wheel drive production car to exceed 200 mph.

One of 355 entries during Speedweek, the Bonneville was driven by 30-year race veteran Mike Cook, a member of the Bonneville 200 mph club. Cook, who set records at El Mirage and Muroc dry lakes, was confident in the

Bonneville's ability to exceed 200 mph, but knew the challenge lay in handling a front wheel drive production car.

The Bonneville underwent a transformation from a family sedan to a highspeed performance machine at Cook Motorsports in Norco, California. Pontiac assembled a team of engineers and expert mechanics including Cook, Richard Lee, Jim Poplawski and Jan Callison to make the modifications.

The Spruce Green Bonneville retained much of its assembly-line amenities including the 12-disc CD changer, power windows and door locks, cruise control, keyless entry and alarm system. Confident of the car's ability, Cook played the radio during each run.

Specs...

- Supercharged 3.8-liter V-6 engine
- More, than 600 horsepower
- Specially prepared transmission by Hydramatic Motorsports
- Deist parachute, competition seat belts and fire protection system
- 112.2-inch wheelbase

# 1999 Porsche 996 Series 911 Carrera

The Porsche 996 is the fifth generation of the 911 model sports car manufactured by the German automaker Porsche from 1997 until 2006. It was replaced by the 997 in 2004, but the high performance Turbo S, GT2 and GT3 variants remained in production until 2006. The 996 had little in common with its predecessor, with the first all new chassis platform since the original 911 and a new water-cooled engine. Technically, it was a major change, a complete break from the original car other than the overall layout.

The 996's development was shared with the roadster-only Porsche Boxster (986) whose nameplate was making its debut as Porsche's entry-level offering. The 986 was released shortly before the 996 for sales. Commonalities between the 996 and 986 included the front suspension, various interior components, and the engine, all of which were enlarged for the 996. However, the multi-link rear suspension was derived from the preceding 993. This was done mainly to save development costs as Porsche was facing financial troubles at that time. This move resulted in cost savings of approximately 30% in the development of the car.

At its debut, the 996 featured the most significant change from the classic 911 series: a water-cooled engine replacing the previously air-cooled engine. Progressively more stringent emissions and noise regulations, environmental concerns, a







higher expectation for refinement and the need for a high-performance 4 valve per cylinder engine made the switch necessary. Other major changes include a completely new platform having a sleeker body with a more raked

windshield, and a re-designed interior along with new "fried egg" shaped headlamps (so called due to the amber colored turn signals) instead of previous "bug eye" headlamps.

In a 1999 poll to determine the Car of the Century, the 911 was fifth behind the Ford Model T, British Motor Company Mini, Citroen DS, and the Volkswagen Beatle. But the 911 is the only one of the top five that has remained in continuous production since then. The one millionth 911 was manufactured in May 2017 and is in the company's permanent collection.

Specs...

- 3.4-liter "flat" 6-cylinder engine
- 296 horsepower
- 6-speed manual transmission with overdrive
- 92,6-inch wheelbase
- Base price of \$65,030

# **1909 REO Five-Passenger Touring Car**

REO was an American automotive manufacturer founded in 1905. Named for its founder, Ransom E. Olds, REO created a wide range of trucks and cars during the company's history. REO is most wellknown for its Royale and Flying Cloud models, but it also produced a wide array of trucks and busses. By 1907, REO had gross sales of \$4.5 million, and the company was one of the four wealthiest automobile manufacturers in the U.S.

After 1908, despite the introduction of improved cars designed by Olds, REO's share of the automobile market decreased due in part to competition from emerging companies like Ford and General Motors. REO was purchased by the White Motor Company and merged with Diamond T Trucks to create Diamond REO Trucks in 1967 - ending the REO brand. Perhaps the most historical REO event was the 1912 Trans-Canada journey. Traveling 4, 176 miles from Halifax, Nova Scotia, to Vancouver, British Columbia, in a 1912 REO special touring car, mechanic/driver Fonce V. (Jack) Haney and journalist Thomas W. Wilby made the first trip by automobile across Canada (including one short jaunt into northeastern Washington State when the Canadian roads were virtually impassable).

This 1909 REO Five-Passenger Touring Car is a running and fully operational vehicle and an excellent example of the brand.

As the story goes, Neal Doughty is credited with coming up with the group's moniker. While taking a class in college on "The History of Transportation," he saw the term "R.E.O. Speedwagon" written on the blackboard. The R.E.O Speedwagon was a vehicle popular in 1915 from the Oldsmobile automotive











company. Ostensibly, it was an ancestor of the pick-up truck today. It seems that sometimes the best band names come from the most unlikely of sources.



### Specs...

- 213 cubic-inch, two-cylinder
- 20 horsepower
- Two-speed planetary transmission
- Three-quarter elliptic front springs with full elliptic rear springs
- Rear wheel drum brakes
- 96-inch wheelbase

### 1909 REO Touring Car



## Rick DeBruhl - "Where is the engine in this 1909 REO"



# **1977 Rolls-Royce Silver Wraith II**

This elegant Rolls-Royce Silver Wraith II was once owned by legendary comedian and television pioneer Red Skelton (1913-1997). The New York Times reported that Skelton had seven Rolls-Royce cars parked in the driveways of his three Palm Springs area homes likely including this car.

The Silver Wraith II was produced from 1977 to 1980, with only 2,135 units made, making it a rare and luxurious choice even among Rolls-Royce offerings. It featured a 6.75liter V8 engine, a GM-sourced threespeed automatic transmission, and distinctive touches like an Everflex vinyl roof and a smaller rear operastyle window-details that might appeal to a celebrity like Skelton, known for his flamboyant yet classy persona. Priced around \$65,000 in 1977 (roughly \$330,000 today), it was a statement vehicle, aligning with Skelton's public image.

If this Silver Wraith II did belong to Skelton, it would carry significant historical value. Skelton was a beloved figure, and his ownership would add provenance to the car, increasing its appeal to collectors. The Silver Wraith II itself is a collector's item due to its limited production and its place in Rolls-



Royce history as one of the last models before the Silver Spirit/Silver Spur series took over in 1980.

Initially, the long-wheelbase model did not have a separate name, but in 1976, with the introduction of the Silver Shadow II, the longer car was dubbed the Silver Wraith II.

The Specs...

- L410 V-8 engine
- 200 horsepower
- 3-speed automatic transmission
- Top speed of 118 miles per hour
- 124-inch wheelbase
- Curb weight of 5,022 pounds
- New price was \$74,550

# **1937 Rolls-Royce 25/30 Limousine**

The Rolls-Royce 25/30 built between 1936 and 1938 is an updated version of the Rolls-Royce 20/25 with a larger engine to provide more power. This was done due to complaints about performance for earlier models. While never officially quoted by Rolls-Royce, the 20/25 engine developed an estimated 65-horsepower in terms of "true" output.

**Chassis-Only Production:** 

Rolls-Royce produced only the rolling chassis and mechanical components. The body was crafted by independent coachbuilders chosen by the buyer, resulting in a wide variety of bespoke designs.

**Notable Coachbuilders:** 

- Park Ward (e.g., formal limousine bodies, as seen in chassis GRP41).
- Thrupp & Maberly (e.g., sports saloon designs).
- Gurney Nutting (e.g., Sedanca de Ville and Sedanca Coupe, known for elegant and royal commissions).
- H.J. Mulliner (e.g., sports saloon with sunroof, chassis GAR 46).
- Salmons & Sons (e.g., Tickford All-Weather Saloon with a patented winddown hood mechanism).
- Windovers (e.g., Standard Four-Door Saloon).

**Customization:** 

**Bodies ranged from formal limousines and** 

saloons to sporty coupes and open tourers. Examples include the rare Martin Walter Four-Door Cabriolet (one of three built) and the James Young Ltd. Fixed-Head Coupe (a one-off design).



This is a relatively late-production example of the Rolls-Royce 25/30. As such, it incorporates many highly desirable running changes made during the model's production run. Among the many features, a glass division window separates the chauffeur from the rear passenger compartment.

The Rolls-Royce 25/30 appeared in films such as The Naked Truth (1957), Death on the Nile (1978), and several others. Although the sultan in Indiana Jones and the Last Crusade (1989) calls his car a Phantom II, the technical details he recites are those of the 25/30. However, the actual on-screen car was neither; it was a 1935 20/25.

**Historical Context and Production:** 

Purpose: The 25/30 was introduced to meet the demand for a more powerful car capable of handling larger, heavier coachwork, which had caused performance complaints with the 20/25. It was a stop-gap model between the 20/25 (1929–1936) and the Wraith (introduced in 1938).

Production Run: Approximately 1,201 units were built from 1936 to 1938, making it rarer than the 20/25 (3,827 units).

Price: The chassis was priced at around £1,100, consistent with the 20/25 and earlier Twenty models, reflecting Rolls-Royce's efforts to maintain affordability by using proprietary components like the Stromberg carburetor and SU fuel pumps.

Market: Targeted at the luxury owner-driver market, the 25/30 was popular among notable figures like T.O.M. Sopwith, Prince Bira, and Sir Malcolm Campbell, who appreciated its balance of performance and maneuverability.

Specs...

- 259.8 cubic-inch inline 6-cylinder engine
- Stromberg downdraught carburetor
- Estimated 65 horsepower
- 4-speed gearbox (Synchromesh is fitted to third and top gears)
- 132-inch wheelbase
- 1,201 made between 1936 and 1938
- Right-hand drive

# 1931 Studebaker Commander Series 70 Sedan

The Studebaker Commander is the model name of a long succession of automobiles produced by the Studebaker Corporation of South Bend, Indiana.

Studebaker first used the Commander name in 1927 and continued to use it for most years through 1964. The model's name was used for various vehicles in the company's product line-up and would often change from year-to-year.

For 1931, the all-new Commander Series 70 line began in July 1930 and continued to September 1931. Production in 1931 was 10,823 and the original price was \$1,685.

The car features a new V-shaped radiator flanked by oval shaped headlights along with parking lights that sit atop the front fenders. The single bar bumper has a Vshaped dip in the center. Freewheeling allows shifting without a clutch.

This Studebaker is on loan in the Martin Auto Museum from Sid Rosen with the Phoenix area Studebaker Club.

Specs...

- 312 cubic-inch 8-cylinder engine
- 101 horsepower
- 3-speed transmission
- 4-wheel brakes
- 124-inch wheelbase



## **1951 Studebaker Champion Starlight Sedan (\*)** This '51 Studebaker was one of six classic cars from the Estate of Senator Howard H. Baker Jr., The Museum acquired it from the Follendorf Family

Senator Baker was the 26th United States Ambassador to Japan in office from July 5, 2001 - February 17, 2005 for President George W. Bush. 12th White House Chief of Staff; February 27, 1987 - July 3, 1988 for President Ronald Reagan. Senate Majority Leader; January 3, 1981 - January 3, 1985. Senate Minority Leader; January 3, 1977 -January 3, 1981. United States Senator for Tennessee; (R) January 3, 1967 - January 3, 1985.

The Senator loved his car collection. Sparing no expense on their restoration and preservation. He had a Special Climate Controlled Garage Built to house this car as well as his 1937Cord B12 Beverly, 1941 Lincoln Continental, 1951

Hudson Hornet Conv., 1962 Ford Galaxie 500 XL Conv., 1963 Lincoln Continental 4-door Conv. His records also showed that all his

cars where checked, cleaned, maintained and started weekly and the miles driven once a month weather permitting. The Senator's restoration documents also showed that he had invested over \$40,000.00 in restoring this car. (VIN # G1000879)

#### Specs...

Price (New): \$ 1644.00

Number Built: 9,444

Engine: Cast-Iron Inline L-Head Six Cylinder 169.6 Cubic Inches Horsepower: (rpm) 85 @ 4000

Transmission: 3-Speed Manual Synchromesh on 2nd & 3rd Gears, Columnmounted Shifter with Lock-out 6 Speed High / Low Overdrive Shock Absorbers: Front & Rear Tubular (First Year) Brake Type: Hydraulic Auto-adjusting 4-Wheel Cast-iron Drums

The Studebaker Champion is an automobile which was produced by the Studebaker Corporation of South Bend, Indiana, from the beginning of





the 1939 model year until 1958. It was a full-size car in its first three generations and a mid-size car in its fourth and fifth generation models, serving as the junior model to the Commander.

The 1951 Studebaker Champion Starlight Sedan is the 3rd generation Champion which ran from 1947 through 1952, distinguished by its unique design and historical significance in the automotive industry. Here's a detailed overview:

### **Design and Styling**

<u>Body Style</u>: The Starlight Sedan is a two-door coupe characterized by its distinctive wraparound rear window, which provided a panoramic view. This design element was quite innovative for its time and contributed to the car's futuristic appearance.

<u>Front End</u>: The front end of the 1951 model featured a more pronounced "bullet nose" design, which was a carryover from the 1950 models. This was a hallmark of Studebaker's post-war styling.

<u>Dimensions</u>: The car had a relatively low and sleek profile, which contributed to its sporty look compared to other sedans of the era.

### **Interior and Features**

**Interior Design:** The interior of the Starlight Sedan was simple yet functional, with a focus on comfort and visibility. The panoramic rear window significantly enhanced the sense of space inside the cabin.

<u>Seating</u>: The car could comfortably seat up to five passengers, with bench seats in both the front and rear.



<u>Dashboard</u>: The dashboard was straightforward, featuring basic instrumentation and controls. Higher trim levels offered additional amenities such as a radio and heater.

### Market Position and Legacy

<u>Price and Market</u>: The Studebaker Champion was positioned as an affordable, stylish vehicle aimed at middle-class families. It was priced competitively, making it an attractive option for many buyers.

<u>Legacy</u>: The 1951 Studebaker Champion Starlight Sedan is remembered for its distinctive design and the innovative approach taken by Studebaker in an era dominated by more conservative styling from the Big Three automakers (Ford, General Motors, and Chrysler). The unique wraparound rear window remains a standout feature in automotive history.

#### **Collectability**

<u>Classic Car Status</u>: Today, the 1951 Studebaker Champion Starlight Sedan is considered a classic car. Its unique design elements, particularly the rear window, make it a sought-after model among classic car enthusiasts and collectors.

<u>Restoration and Value</u>: Well-preserved or fully restored examples of this model can fetch a respectable price at classic car auctions. The availability of parts and a supportive community of Studebaker enthusiasts also make restoration a viable option for hobbyists.

In summary, the 1951 Studebaker Champion Starlight Sedan stands out as a memorable and innovative vehicle from the early 1950s, combining distinctive design with practical performance and an affordable price point, which together contributed to its lasting legacy in automotive history.

## Revision May 20, 2025 rev U 1951 Studebaker Model R6 Half Ton Truck Custom

This 1951 Studebaker truck has been extensively modified and customized. It has been chopped 3 inches, channeled 10 inches, has 144 louvers in the hood and has an amazing PPG paint job that has at least 10 different colors in it. Walk around the truck and watch it change colors! The interior is totally custom



and has a 1949 Mercury dash, Ultraleather seats and unique steering wheel. It rides on a custom Toyota truck chassis and is powered by a Toyota 4-cylinder engine and a 5-speed manual transmission.

This head-turning truck - lovingly nicknamed "The Pickle" by museum staff - looks very different than it did when it rolled off the assembly line in 1951. Heavily modified

Specs (Stock)

- Cost about \$1,400 in 1951 (equal to \$17,220 in 2025)
- 245.6 ci (4.0L) Flathead Inline 6 Cylinder Engine, 7.0-7.5:1 Compression, Carter 1barrel carburetor
- Bore: 3.3125 in (84.14 mm) Stroke: 4.75 in (120.65 mm)
- 102\*\* hp @3,200 rpm, 205\*\* lb-ft @1,200 rpm, Maximum rpm: About 3,600 rpm
- 3 speed manual (overdrive optional), 4.09:1 axle ratio (4.82:1 optional, required with overdrive)
- 3,060 lb (1,388 kg) curb weight
- Performance (Stock, estimated\*\*\*):





- 0-60 mph: 14.2 seconds (13.9 with 4.82 ratio)
- 1/4 mile: 19.8 seconds @69 mph (20.3 @60 mph with 4.82 ratio)
- Top speed: 70 mph @3,600 rpm (113 kph) (60 mph @3,700 rpm with 4.82 ratio, 84 mph @3,600 rpm with overdrive)

## **Modifications:**

- 1975-1977 Toyota Pickup (Hilux) chassis, with Toyota 20R 2.2L SOHC 4 Cylinder (produces 97 hp, 119 lb-ft) and a 5-speed manual
- Stock Toyota rear axle, with 4.375:1 rear axle ratio
- Aftermarket steel wheels, with chrome wheel covers and 5.60-15 bias ply whitewall tires
- Rear air shocks for extra clearance when needed (no air bags, stock Toyota suspension)
- 1950 Buick grille
- 1955 Cadillac front bumper
- Headlights appear to be from a 1961-1962 Chrysler
- Modified 1957 Buick rear bumper (center section, not including the taillights)
- Taillights were made from a Peterson round taillight and a 1955 Oldsmobile 98 taillight lens
- The bed cover was made from a modified 1970 Oldsmobile Toronado hood\*\*\*\*
- 1949 Mercury dash
- 144 louvers on the hood
- Roof was chopped 3 inches\*\*\*\*
- Body was channeled 10 inches\*\*\*\*\*
- Custom metallic green PPG paint, with at least 10 different colors (changes colors as you walk around it)
- Custom leather interior
- Custom tilt and telescoping steering column from a 1960s-1970s GM car
- Custom Steering wheel (more like a steering yoke than a wheel)

\*Half ton refers to the payload capacity (1,000 lbs), not the weight of the truck.

\*\*This is the gross rating, net rating was 92 hp @3,200 rpm, 201 lb-ft @1,200 rpm (gross rating is the engine with no exhaust, air filter, minimal (if any) engine accessories, and optimal ignition timing, net ratings test the engine as it is installed in the vehicle (both measured at the flywheel, not at the wheels))

**\*\*\*Performance was estimated using net engine ratings** 

\*\*\*Heavily modified, probably includes some of the front fenders as well.

\*\*\*\*3 inches were taken out of the roof, doors, and windows to make it lower.

\*\*\*\*\*The body was cut and modified to sit between the frame rails instead of on top of them, and as a result sits 10 inches lower than it used to.

## **1965 Studebaker Wagonaire** NOTE: Our founder and Chairman, Mel Martin, purchased this interesting and rare vehicle at the Glendale Mecum Auction in 2021, with the proceeds benefitting the Curing Kids Cancer charity.

Despite the financial woes that Studebaker faced from the mid-1950's through their closing in 1966, they produced some of the more innovative cars of the time. One of those pioneering designs was the Wagonaire, produced from 1963 to 1965.

The Wagonaire featured a distinctive rear roof that slid forward, greatly expanding the cargo space. Studebaker advertising promoted their unique roof feature showing families loading up in the open cargo area with kids, dogs and even a playground slide. Another feature is the drop-down step on the rear tailgate - a characteristic on modern GMC trucks called "innovative" even though Studebaker featured this more than 40 years earlier.

Studebaker's South Bend, Indiana, plant closed in late 1963 and production was consolidated to a facility in Hamilton Ontario, Canada. Nearly 12,000 Wagonaires rolled off the assembly line in 1963, but that couldn't counteract Studebaker's continued sales spiral.





Read about Studebaker Brothers Manufacture Company in the Pioneers of the Automotive Industry <u>Section page 529</u>.

#### Specs...

- 327 cubic-inch V-8 engine
- 275 horsepower
- Four-core radiator
- Turbo 350 automatic transmission
- Ford 9-inch differential
- Front disc brakes
- Original interior



## Rick DeBruhl's Commentary - "Forget the Wagoneer, how about a Studebaker WagonAIRE!"

### Part One



Part Two



# 2004 Streetnik Bandit (\*)

## Ed "Big Daddy" Roth was an American artist,



cartoonist, illustrator, pin-striper and custom car designer and builder who created the hot rod icon "Rat Fink" and other characters. Roth was a key figure in Southern California's Kustom Kulture and hot rod movement of the late 1950's and 1960's.

Roth created his wild custom show cars like no one else. Ed Roth Cars were not just offthe-assembly-line models modified with body work — they were all unique creations. Roth began his custom car bodies with







plaster and

then laid fiberglass over the hardened plaster. When the fiberglass was set, he knocked out the plaster underneath with rubber hammers.

He liked the idea that fiberglass as it was very cheap and that it didn't require a lot of training to use, as Roth put it, "It could also be done by people with little or no talent and I had both." Roth used the plaster and fiberglass method throughout his career to create his one-of-a-kind show cars.

Ed Roth's son Dennis "Little Daddy" Roth designed, built and showed Streetnik Bandit in many car shows including SEMA in 2010. Dennis Roth donated this car to the Martin Auto Museum. The car is named "Streetnik Bandit" and signed By Dennis as

"Little Daddy".

Ed Roth died of a heart attack on April 4, 2001, at the age of 69.

Since his death, the official Rat Fink Reunion has been held in Manti the first weekend in June. The museum that Ilene Roth created to honor her late husband includes displays of Roth's art work and other memorabilia. Roth's son Darryl has been working on collecting and displaying his father's work. Dennis "Li'l Daddy" Roth continues to promote His dad's wok through Roth Metal Flake. You can follow him on Facebook @RothMetalFlake.

Specs...

- Chevy 350 V-8 engine
- Dual four-barrel carburetors with Tunnel Ram
- Automatic transmission

# **Roth's Origins**

It all started when the infamous Outlaw and Beatnik Bandit cars came back from the "World of Wheels" tour in 1963. Ed Big Daddy" Roth started painting the cars with metal flake the primitive way; wetting the cars and manually shaking flake through a shoe box, teaching Dennis "Lil Daddy" Roth along the way. Larry Watson gave Big Daddy a pressure pot to shoot flake out of and the rest is friggin' history! Flake the world!

## **Roth Reborn**

Lil' Daddy Roth's wheels were spinnin' as he worked on the Maxterion, a kustom build that he was creating at the time. He was shaping and grinding on plaster and thought about the good 'ole days with his dad "Big Daddy" spraying metal flake in resin. What a cool idea to bring it back again and share with the world the positive intensity of metal flake! A quick phone call and into the picture comes Steve to lend a hand and make it happen! The rest is history with the product debut at the L.A. Father's Day show, two magazine articles on flaking a car and also a lace and flake job too!

# 2012 Tesla Model S Signature Performance (\*)

Tesla allocated its first 1,000 units to its Signature and Signature Performance limited edition configurations, equipped with the 85-kWh battery pack.

This 2012 Tesla Model S Signature Performance carries serial number 008 and has remained with two owners in California. It has 60k miles and is finished in Sierra Black over black leather with contrast piping. The car is powered by a three-phase AC induction motor paired with a single-speed direct-drive transaxle, and features include gray-finished 21" Turbine alloy wheels, an 85-kWh battery pack, a panoramic glass roof, a carbonfiber rear spoiler, heated power-adjustable front seats, automatic climate control, and a 17" touchscreen. This Model S Signature was donated to the Petersen Automotive Museum in 2017.

The car is finished in Sierra Black (PBSB) with a carbon-fiber rear spoiler. The sunroof does not work, and paint chips are noted on the front bumper. Paint protection film has been applied on portions of the fenders.

Gray-finished 21" Turbine alloy wheels are





scuffed and wear Continental Extreme Contact tires measuring 245/35. Braking is handled by four-piston aluminum calipers over vented discs at all four corners. The heated power-adjustable front seats are trimmed in black leather with red piping, and amenities include an Alcantara headliner, carbon-fiber trim, automatic climate control, cruise control, and a 17" touchscreen.

The leather-wrapped steering wheel frames a configurable digital display. The instrument cluster was replaced in October 2023. The digital odometer indicates 60k miles, approximately 9k of which were added under current ownership. The cluster notes that a software update is required.





The 85-kWh battery pack feeds a rear-mounted three-phase AC induction motor that sends power to the rear wheels via a single-speed direct-drive transaxle.

#### **TEST RESULTS:**

- Zero to 60 mph: 4.6 sec
- Zero to 100 mph: 12.1 sec
- Zero to 120 mph: 21.4 sec
- Street start, 5-60 mph: 4.5 sec
- Top gear, 30-50 mph: 1.8 sec
- Top gear, 50-70 mph: 2.3 sec
- Standing 1/4-mile: 13.3 sec @ 104 mph
- Top speed (governor limited): 134 mph
- Braking, 70-0 mph:160 ft
- Roadholding, 300-ftdia skidpad: 0,91 g

### Specs...

- Chassis: 5YJSA1DP5CFS00008
- 60k Miles
- Three-Phase AC Induction Motor
- 85-kWh Battery Pack
- Single-Speed Direct-Drive Transaxle
- Sierra Black Paint
- Black Leather Upholstery
- 21" Twin Turbine Alloy Wheels
- Panoramic Glass Roof
- Carbon-Fiber Rear Spoiler
- Heated Power-Adjustable Front Seats
- Automatic Climate Control
- 17" Touchscreen Infotainment

## **1966 Trabant 601 (\*)** This very cute '66 Trabant was donated by Olga and Michael Block

The Trabant 601 (or Trabant P601 series) was a Trabant model produced by VEB Sachsenring in Zwickau, Saxony. It was the third generation of the model, built for the longest production time, from 1964 to 1990. As a result, it is the bestknown Trabant model and often referred to simply as "the Trabant" or "the Trabi". During this long production run, 2,818,547 Trabant 601s were produced overall and it was the most common vehicle in East Germany.

The Trabant 601 was a modern automobile when introduced in 1963, with 150 pre-production examples. The body was modified from the previous P50/P60 variants of the Trabant, with a heavy emphasis on the front and roof



area. The back of the car was also modified with different taillights and a higher trunk loading height as compared to previous models. Overall, the design was praised, particularly on the then-modern double trapezoid design. Originally, production was only planned to run from 1967 to 1971, but instead continued until 1990. The original P 60 engine was only 23 PS (16.9 kW). In 1969 the new P62 version was offered with a 26 PS (19.1 kW) engine. In 1974, a needle roller bearing was added to the connecting rod, allowing for a 50/1 lubricant to be used. Through the addition of a twostage carburetor in 1984, the fuel consumption was brought down by 1/100 L/km. With these additions, the top speed was measured to be 107 km/h.<sup>[3]</sup> Even with these improvements, the fuel consumption could still rise rapidly with extended acceleration or when towing a trailer. The P601 also had an overrunning clutch when running in fourth gear.

## 18-minute addition info on Trabant



## **24-minute Video on the Trabant**



### Specs...

- Engine: 594 cc P60 P66 Two Strike 12
- Transmission: 4 Speed Manual
- Production: 1964 1990
- Produced: 2,818,547

After a few comments from our guests indicating that this Trabant was NOT a 1966. Many features on this sweet little green automobile tell a much different story. So, like we always do we reached out to as many experts as we could to dig into the truth. Now, as you might suspect when you are fact-check thing you find that there are many truths and many versions of what is and what should be. Our conclusion is at the bottom.

Our Trabant or "Trabi" as some owners call it according to ChatGPT!

The 1966 Trabant, specifically identified with the ID number E536114, is a vehicle from the Trabant 601 series, which was manufactured by VEB Sachsenring Automobilwerke Zwickau in East Germany.

Here is some general information about the 1966 Trabant 601:

**Overview:** 

- Model: Trabant 601
- Manufacturer: VEB Sachsenring Automobilwerke Zwickau
- Production Period: 1963–1990
- Vehicle Type: Small family car

**Technical Specifications:** 

- Engine: Two-stroke, air-cooled, two-cylinder engine
- Displacement: 594 cc
- Power Output: Approximately 23 horsepower (17 kW)
- Top Speed: About 100 km/h (62 mph)
- Transmission: 4-speed manual
- Drive Type: Front-wheel drive

**Design and Features:** 

- Body Style: Available as a sedan and a station wagon (Universal)
- Material: Duroplast body panels (a type of plastic made from recycled materials)
- Interior: Basic and utilitarian, reflecting its design for affordability and ease of production
- Notable Features: Simple design, lightweight, and highly durable

- Role: The Trabant 601 was one of the most common cars in East Germany and the Eastern Bloc.
- Popularity: Known for its durability and simplicity, which made it relatively easy to repair.
- Cultural Impact: Despite its modest capabilities, it became an iconic symbol of East Germany.

# **Collectability:**

- Value: Today, Trabants are considered classic cars and are collected by enthusiasts around the world. Their value varies based on condition, originality, and historical significance.
- Restoration: Due to their simple design, Trabants are relatively easy to restore and maintain.

Our Trabant or "Trabi" as some owners call it according to Friends at the North American Trabant Club (NATOC)

Rita:

next to the chassis nr on the left must be an identification plate and on that you can find the year when it was built but it is a little bit tricky, our Trabi is from 1971 but we are not sure!

Michael:

601 wasn't manufactured in 1966. Your car is between 1985 and 1988, using my expert opinion. There should be date stamps on the road wheels that might give a hint.

**Eric Allen** 

One of my Trabants is an E chassis number. I believe it is for Ersatz, substitute. Either factory restored or two damaged cars built to one and issued a new E number. If anyone knows otherwise, please share, I'd like to know also.

Bill:

Bumpers, turn signals, door handles, grill, wheels and headrests are all 1980s but could've been changed. But the B pillar also looks later that wouldn't have gotten changed. My guess is post-1987 due to the headrests. Inside door latch can place it to post-1989 if it's a lever. Pre-1989 if it's a slider

Petr:

Not a 66. More like 86. E means that the body was manufactured after 1984. You can recognize also a B Pillar. E body has thicker B Pillar.

### **CONCLUSION:**

So, our Trabant might be a 1966, 1985, 1983, 1963, or 19??... one thing for sure and we stick to our guns on this one it is a TRABANT!!! we think?

### Revision May 20, 2025 rev U 1948 Tucker 48 SN 1021 "The Car of Tomorrow" (\*)

This car (21 of only 51 ever built) was originally sold from the Tucker Corporation on February 16, 1949 to one of Tucker's Californian dealers, Charles DeCosta, who loved the Tucker automobile and kept this car until May 1967, when he sold it to another California-based Tucker enthusiast, Gene Clarke, an active member of the Tucker Automobile Club of America. He maintained the car and kept it roadworthy until 2021 when failing health intervened; in 2023, following Mr. Clarke's

passing, No. 1021 was purchased by Mark Lieberman, senior director of the Tucker Automobile Club and noted Tucker historian.

An extremely original example, No. 1021 is presented largely in "as found" condition and wears its original color scheme of black









repainted only once in preparation for its role in the movie,



"Tucker: The Man and His Dream," starring Jeff Bridges in the title role. It retains original body paint in its door jambs, luggage compartment and engine bay. The original carpeting remains inside the luggage compartment as well. The interior was

reupholstered just prior to the movie's production, although the robe rail, grab straps and sun visors remain original and quite exceptional.

The Tucker's engine bay remains largely original with minor deviations added for convenience by Mr. Clarke, including a fuel sight bowl and filter in front of the carburetor, machined valve cover fasteners and a ventilation breather tube. Original vented wheel covers with enameled medallions are at all four wheels. The original radio antenna with red plastic ball remains on the driver's side fender and is paired to the original early-style Tucker radio by

Motorola. Other highlights include an optional under-seat-heater and ashtrays in the doors. The suspension was converted in the late 1960s to coil springs, as there were no replacements available for the Tucker's OEM Torsilastic rubber system. However, today such parts are now available to convert the car back to the original Torsilastic suspension if desired. A new water pump is in place, the ignition distributor was rebuilt, and recent maintenance work includes a fluid service and installation of a new battery.

With just three owners from new, this irreplaceable, investment-grade 1948 Tucker 48 retains all original body panels and floors. Outstanding documentation includes a copy of the original bill of sale from Tucker Corp., an original letter from the first owner offering to sell the car to the second owner, a copy of factory production details, and various other Tuckerrelated documents.

Specs:

- Assembled in Chicago, Illinois
- Air Cooled 335ci, 166 HP, 372 lbs./ft
- Y1 4 speed pre-selector transmission
- 6-volt system



Lou Costabile My Car Story - Tucker

**Tucker at Mecum** 



Tucker Tales- The Story of Tucker 48 #1021



Executive Producer George Lucas And Director Francis Ford Coppola in the Editing Room working on the Movie Tucker that was shot in S.F.



# Factory shot from multiple source



**Rick DeBruhl Commentary - "Tucker: Genius or Scam?"** 




# **Reshaping History with Digital Sheet Forming**



### Revision May 20, 2025 rev U Presented and nicknamed "Sallie" with Loving Memory of Sallie F. Martin



Sallie F. Martin (90) passed away on December 31, 2023. She is survived by her loving husband Melvin R. Martin.

Sallie was born in Phoenix, Arizona, on December 3, 1933, and was the daughter of Del W. Fisher and Kathryn H. Fisher (Vandy). She was preceded in death by her parents, brother Robert D. Fisher, and former husband Glenn B. Rudd.

Sallie is survived by son Mark R. Fallon (Karen), daughter Peggy J. Fallon, daughter Karen S. Breier (Mel), and son Kent D. Rudd. She is

also survived by seven grandchildren and six great grandchildren. She was a proud graduate of Arizona State University and retired as a branch manager for First Credit Union in 1995. Following her retirement, she enjoyed spending time with family and friends and traveling. She particularly enjoyed time in San Diego and attending Arizona Diamondback games.

Scroll down to see a list of all of the Tucker cars and what has happened to them.

Chassis		C	omplete Tucker 48s #	0000-1050	Completed at t	he Tucker Fact	ory	Front suspension	Original body color/paint
number	Notes	Condition	Location	Status	Owner	Engine	Transmission	version	code
0	Ine prototype model. Lucker #0000 was the only complete Tucker with Rubber Disc prototype suspension, the 589 engine, and direct torque converter drive (with no reverse gear). After the first showing, it was converted to an O-335/Y-1 at the Tucker	Complete	Huntingdon, Pennsylvania	Intact	Swigart Antique Auto Museum	Tucker 589 cu in. Direct Drive (original)	Direct drive torque converters (original)	s Rubber Disc Type	Maroon/600
1001	Tactory. Tucker #1001 was previously owned by David Cammack as part of the Tucker Collection in Alexandria, Virginia. Upon Cammack's death in 2013, his entire extensive Tucker collection was donated to the AACA Museum in Hershey, Pennsylvania.	Complete	Hershey, Pennsylvania	Intact	AACA Museum	Franklin O-335	Tucker Y-1	Rubber Torsion Tube 1	Maroon/600
1002	Tucker #1002 was the last Tucker produced with Rubber Torsion Tube 1 front suspension, which was plagued by severe toe-in when braking and was replaced with Rubber Sandwich from Tucker #1003 on. The rear fenders were also changed from #1003 on to allow rear wheel removal.	Complete	Clayton, Ohio	Intact	Privately owned by Elaina Hill	Franklin O-335	Tucker Y-1	Rubber Torsion Tube 1	Waltz Blue/200
1003	Tucker #1003 is currently on display at the Academy of Art University Automobile Museum in San Francisco. <sup>[27]</sup> Sold at Gooding & Co's Pebble Beach Auction in 2014 for \$2,035,000 <sup>[29]</sup>	Complete	California	Intact	Privately owned	Franklin O-335	Tucker Y-1	Rubber Sandwich	Maroon/600
1004	Tucker #1004 was originally Grey(Silver)/500, but was painted Maroon/600 when it was restored in 1978. Was reportedly entered in two NASCAR races in 1950.[29]	Complete	Nagakute, Japan	Intact	Toyota Automobile Museum	Franklin O-335	Tucker Y-1	Rubber Sandwich	Grey(Silver)/500
1005		Complete	Tallahassee, Florida	Intact	Tallahassee Automobile Museum	Franklin O-335	Tucker Y-1	Rubber Sandwich	Waltz Blue/200
1006		Complete	Clayton, Ohio	Intact	Privately owned by Elaina Hill	Franklin O-335	Tucker Y-1	Rubber Sandwich	Green/300
1007	Tucker #1007 left the factory in the Green/300 with the Green/900 interior trim, one of eight to be produced in green. During the early 1960s, Tucker #1007 was painted a bright red-orange, then later painted black, then lastly painted its present deep metallic blue color in the early 1990s. It is currently on display in the LeMay Family Collection at the Marymount Event Center in Tacoma, Washington.[3]	Complete	Tacoma, Washington	Intact	LeMay Family Collection	Franklin O-335	Tucker Y-1	Rubber Sandwich	Green/300
1008	Tucker #1008 was originally Beige/400 but is now Maroon/600. It is currently located in the Richard Driehaus Collection at Chicago Vintage Motor Carriage.	Complete	Chicago, Illinois	Intact	Chicago Vintage Motor Carriage	Franklin O-335	Tucker Y-1	Rubber Sandwich	Beige/400
1009		Complete	California	Intact	Lucasfilm	Franklin O-335	Tucker Y-1	Rubber Sandwich	Grey(Silver)/500
1010	After being stored in a barn near Tacoma, Washington for 50 years, Tucker #1010 was sent to auction in January 2011 via Gooding and Co. in Scottsdale, Arizona for a starting bid of \$750,000. Reports and photos indicate the vehicle is in major need of restoration: the engine was reportedly seized, with rust damage throughout the vehicle and some minor exterior parts mising, including the original hubcaps.	Complete	Scottsdale, Arizona	Intact	Privately owned	Franklin O-335	Tucker Y-1	Rubber Sandwich	Waltz Blue/200
1011		Complete	Montana	Intact	Privately owned	Franklin O-335	Tucker Y-1	Rubber Sandwich	Beige/400
1012	Tucker #1012 is on public display at the La Porte County Historical Society Museum as part of the Kesling Auto Collection.	Complete	LaPorte, Indiana	Intact	La Porte County Historical Society Museum	Franklin O-335	Tucker Y-1	Rubber Sandwich	Maroon/600
1013		Complete	Huntingdon, Pennsylvania	Intact	Swigart Antique Auto Museum	Franklin O-335	Tucker Y-1	Rubber Sandwich	Waltz Blue/200
1014	Tucker #1014 is on display at Inglenook Winery in Rutherford, California, located in Napa Valley.	Complete	Rutherford, California	Intact	Privately owned by Francis Ford	Franklin O-335	Tucker Y-1	Rubber Sandwich	Waltz Blue/200
1015		Complete	St. Clair Shores,	Intact	Stahls	Franklin O-335	Cord 810/812	Rubber Sandwich	Green/300
1016		Complete	Michigan Dearborn, Michigan	Intact	The Henry Ford	Franklin O-335	Tucker Y-1	Rubber Sandwich	Black/100
1017		Complete	Colorado	Intact	Privately owned	Franklin O-335	Tucker Y-1	Rubber Sandwich	Green/300
1018	Tucker #1018 was damaged beyond repair in 1953 after broadsiding a tree in South Wales, New York. The remnants of the frame are located in Grand Rapids, Michigan. Some body panels are in Roscoe, Illinois with the owner of Tucker #1027. The engine and Y-1 transmission from #1018 are located at the AACA Museum in Hershey, Pennsylvania. <sup>[30][31]</sup> The front end sheet metal from #1018 was used to complete Tucker #1052 in 2015. <sup>[32]</sup>	Complete	Grand Rapids, Michigan	Destroyed	Privately owned	Franklin O-335	Tucker Y-1	Rubber Sandwich	Beige/400
1019	Tucker #1019 was painted light blue by its owner in 1959, shortly after purchasing the car. It was repainted again a few years later in a metallic blue shade approximating Waltz Blue; this color remains on the car to this day.	Complete	California	Intact	Privately owned	Franklin O-335	Tucker Y-1	Rubber Sandwich	Grey/500
1020		Complete	Japan	Intact	Hani Corporation	Franklin O-335	Tucker Y-1	Rubber Sandwich	Maroon/600
1021		Complete	California	Intact	Privately owned	Franklin O-335	Tucker Y-1	Rubber Sandwich	Black/100
1022	Tucker #1022 was previously owned by David Cammack as part of the Tucker Collection in Alexandria, Virginia. Upon Cammack's death in 2013 his entire extensive Tucker collection was donated to the AACA museum in Hershey, Pennsylvania.	Complete	Hershey, Pennsylvania	Intact	AACA Museum	Franklin O-335	Tucker Y-1	Rubber Sandwich	Grey(Silver)/500

Chassis		Co	omplete Tucker 48s ‡	#0000-1050	Completed at t	the Tucker Fact	ory	Front suspension	Original body color/paint
number	Notes	Condition	Location	Status	Owner	Engine	Transmission	version	code
1023	While in storage in a DeLand, Florida warehouse, awaiting restoration. The warehouse burned to the ground. The car's remains were crushed in 1980 by its owner, a founder of the Tucker Automobile Club of America.	Complete	DeLand, Florida	Destroyed	Privately owned		Tucker Y-1	Rubber Sandwich	Maroon/600
1024		Complete	Lincoln, Nebraska	Intact	Museum of American Speed	Franklin O-335	Tucker Y-1	Rubber Sandwich	Waltz Blue/200
1025	Tucker #1025 was the last Tucker produced with Rubber Sandwich front suspension, which was abandoned due to severe stiffness issues and replaced with Rubber Torsion Tube 2 from Tucker #1026 on.	Complete	Frankfort, Indiana	Intact	Goodwin Collection	Franklin O-335	Cord 810/812	Rubber Sandwich	Green/300
1026	Tucker #1026 is the only remaining complete Tucker with the Tuckermatic transmission. Car #1026 was previously owned by David Cammack as part of the Tucker Collection in Alexandria, VA. Upon Cammack's death in 2013 his entire extensive Tucker collection was donated to the AACA Museum in Hershey, Pennsylvania.[3]	Complete	Hershey, Pennsylvania	Intact	AACA Museum	Franklin O-335	Tuckermatic R-1- 2	Rubber Torsion Tube 2	Maroon/600
1027	Tucker #1027 was rolled during testing at Indianapolis Motor Speedway by Tucker in 1948. The engine and transmission were removed at the factory, and the chassis was sold at the factory auction. The ACAA Museum used to own some body panels to wrecked Tucker #1018, other parts were either lost or used in restoration of other Tuckers. The car was sold by the owner of Historic Auto Attractions; its current location is unknown. <sup>[33]</sup>	Complete	Unknown	Destroyed	Unknown	Franklin O-335	Unknown	Rubber Torsion Tube 2	Waltz Blue/200
1028	Tucker #1028 was sold in an auction at the Tupelo, (Mississippi) Automobile Museum on April 27, 2019 for \$1.985 million <sup>124</sup> to Tim Stentiford, owner of Maine Classic Car Museum. Tucker #1028 is the only Tucker on public display in New England. <sup>125</sup>	Complete	Arundel, Maine	Intact	Maine Classic Car Museum	Franklin O-335	Cord 810/812	Rubber Torsion Tube 2	Beige/400
1029	Tucker #1029 was Preston Tucker's personal car that he drove for seven years until he sold it in 1955 to Winthrop Rockefeller. Until October 2017 it was located in the Lew Webb's Classic Car Museum in Aliso Viejo, California. In 2018, Tucker #1029 was auctioned by RM Sotheby's in Arizona for \$1.8 million. <sup>[36][37][36][39]</sup>	Complete	Aliso Viejo, California	Intact	Privately owned	Franklin O-335	Tucker Y-1	Rubber Torsion Tube 2	Grey(Silver)/500
1030	Tucker #1030 is one of the vehicles used for testing at Indianapolis and a personal car of Preston Tucker. Acquired by the Petersen Museum in 1996.	Complete	Los Angeles, California	Intact	Petersen Automotive Museum	Franklin O-335	Tucker Y-1	Rubber Torsion Tube 2	Black/100
1031		Complete	Los Angeles, California	Intact	Breslow	Franklin O-335	Tucker Y-1	Rubber Torsion Tube	Waltz Blue/200
1032		Complete	Reno, Nevada	Intact	National Automobile	Franklin O-335	Cord 810/812	Rubber Torsion Tube	Grey(Silver)/500
1033	Purportedly one of the most original Tuckers in existence, Tucker #1033 is kept in a private collection that is opened once per year in July to raise money for the town of South Paris and to benefit the Hannibal Hamlin Estate where it resides.[40]	Complete	South Paris, Maine	Intact	Bahre Collection	Franklin O-335	Tucker Y-1	Rubber Torsion Tube 2	Maroon/600
1034		Complete	Tucker, Georgia	Intact	Cofer Collection	Franklin O-335	Tucker Y-1	Rubber Torsion Tube 2	Waltz Blue/200
1035	TUCKER #1035 WAS exported to Er221 IN 1949, where it was eventually kept in a private collection along with 50 other cars. In 1955 its owner swapped the original Tucker chassis and drivetrain for one originally belonging to a 1947 Cadillac Series 62, with the original Tucker engine being swapped into a racing boat around that time. In order to accommodate these changes, several modifications were made to the exterior of the car including a few additional trim pieces above the front bumper, not present on the original model. At some point the car was painted light blue, but it was converted back to its original color some time later. The car was sold to a museum in 1963, but its owner was unaware of the car's rarity and used it as a donor to other Cadillac models in its collection. The car then spent over 50 years in charge will it was converted in the original	Complete	Caçapava, Brazil	Modified	Museu Paulista de Antiguidades Mecânicas	346 Flathead V8. Car now has a Cadillac drivetrain, original engine was used in a racing boat	Unknown	Rubber Torsion Tube 2	Maroon/600
1036	Tucker #1036 was sold at RM Sotheby's Auction in Monterey on August 15, 2014 for \$1,567,500 <sup>[43]</sup>	Complete	Nevada	Intact	Privately owned	Franklin O-335	Tucker Y-1	Rubber Torsion Tube 2	Maroon/600
1037	On public display in the wine tasting room at the Francis Ford Coppola Winery in Geyserville, California.	Complete	Geyserville, California	Intact	Privately owned by Francis Ford Coppola	Franklin O-335	Tucker Y-1	Rubber Torsion Tube 2	Maroon/200

Chassis number	Notes	Condition	Location	Status	Owner	Engine	Transmission	Front suspension version	Original body color/paint code
1038	Tucker #1038 was owned by Bernard Glieberman. It was on display in Shreveport, Louisiana, while Glieberman owned the Shreveport Pirates. In 1995, creditors moved to seize the car due to Glieberman's financial problems, and Glieberman's lawyer attempted to steal the car and hide it from authorities, only to run out of gas. Glieberman was eventually allowed to keep the car. <sup>[44]</sup> The car was sold at auction in August 2006 for \$577,500 (\$525,000 plus fees) and sold again in August 2008 for \$1,017,500 (\$925,000 plus fees).	Complete	Unknown	Intact	Privately owned	I Franklin O-335	Cord 810/812	Rubber Torsion Tube 2	Green/300
1039	After years in Smithsonian storage, Tucker #1039 was placed on public display in the National Museum of American History in 2011. Tucker #1039 was acquired by the Smithsonian through the U.S. Marshals Service which had previously seized the car in a 1992 narcotics arrest. Instead of selling the car, the U.S. Marshals Service decided to donate the car to the Smithsonian. Currently on display as of May, 2022. <sup>[45][needs update]</sup>	Complete	Washington, DC	Intact	Smithsonian Institution	Franklin O-335	Tucker Y-1	Rubber Torsion Tube 2	Grey(Silver)/500
1040	Tucker #1040 was owned by the Nethercutt Collection. It was auctioned by Sotheby's on January 18, 2019, going for \$1.6 million.	Complete	Sylmar, California	Intact	Nethercutt Collection	Franklin O-335	Tucker Y-1	Rubber Torsion Tube 2	Beige/400
1041	Tucker #1041 was sold at the Clars Auction on June 7, 2009 for \$750,000 (\$765,000 with fees).	Complete	California	Intact	Privately owned	Franklin O-335	Cord 810/812	Rubber Torsion Tube 2	Black/100
1042	Tucker #1042 was sold at the Tucker auction without an engine. Rumors exist that it was used in a "Bash a Tucker" fundraiser in the 1950s or may have been hauled off from its storage location by a disgruntled renter. Its location was unknown until 1960 when it was reportedly found abandoned and destroyed along the banks of the Mississippi River in Memphis. A Memphis policeman took possession of the remains, but they were later stolen from his property. Most of the Tuckermatic transmission was found and is currently located at the AACA Museum in Hershey, Pennsylvania.	Complete	Memphis, Tennessee	Destroyed	Privately owned	I Franklin O-335	Tuckermatic R-1- 2	Rubber Torsion Tube 2	Maroon/600
1043	Tucker #1043 was sold at the Barrett- Jackson Auction in Scottsdale, Arizona on January 21, 2012 for \$2,915,000, presumably the highest sale of a Tucker 48 sedan to date. <sup>[46]</sup>	Complete	Scottsdale, Arizona	Intact	Privately owned	I Franklin O-335	Unknown	Rubber Torsion Tube 2	Waltz Blue/200
1044	Tucker #1044 was sold at RM Sotheby's Auction in Arizona on January 19, 2017 for \$1,347,500 to Howard Kropitck. <sup>417</sup> The car, which had been painted a Root Beer Brown, was restored to its original color in 2018. <sup>[46]</sup>	Complete	Roslyn, New York	Intact	Privately owned by Howard Kroplick	l Franklin O-335	Cord 810/812	Rubber Torsion Tube 2	Green/300
1045	Tucker #1045 was sold at RM Auctions Sports & Classics of Monterey on August 13, 2010 for	Complete	Melbourne, Australia	Intact	Privately owned	Franklin O-335	Tucker Y-1	Rubber Torsion Tube 2	Grey(Silver)/500
1046	Tucker #1046 was converted to a front- engine Oldsmobile drivetrain in the 1950s by Nick Jenin for his daughter. In 1963 it was sold to a Mercury dealer in Oregon and converted to a 1964 Mercury Monterey chassis with 390 CID front engine. Sold on eBay for \$202,700 (8/20/07) and reportedly returned to original specifications, including a correct Tucker engine. In 2017 it was offered for sale for \$2.1 million.	Complete	California	Intact	Privately owned	Franklin O-335 (original) / I Oldsmobile Rocket 88 / Mercury 390CID	Cord	Rubber Torsion Tube 2 (original)/Removed for front engine conversion	Maroon/600
1047		Complete	Hickory Corners, Michigan	Intact	Gilmore Car Museum	Franklin O-335	Cord 810/812	Rubber Torsion Tube 2	Waltz Blue/200
1048	Originally with a Borg-Warner 3 speed automatic, Tucker #1048 was sold at the factory auction without a transmission installed. A Tucker Y-1 may have been installed when the car was completed privately.[citation needed]	Complete	Hartford, Wisconsin	Intact	Privately owned	l Franklin O-335	Borg-Warner 3- speed automatic (original)	Rubber Torsion Tube 2	Green/300
1049	Tucker #1049 was sold at RM Sotheby's Auction in Monaco on May 14, 2016 for €1,344,000 (approximately \$1,519,850 USD). <sup>[50][51]</sup>	Complete	California	Intact	Privately owned	Franklin O-335	Tucker Y-1	Rubber Torsion Tube 2	Waltz Blue/200
1050	Tucker #1050 is the lowest mileage Tucker in existence, with 0.4 miles on the odometer.	Complete	San Marcos, Texas	Intact	Dick's Classic Garage	Franklin O-335	Cord 810/812	Rubber Torsion Tube 2	Maroon/600
1051	Tucker #1051 was not completed at the Tucker factory, so it is not technically considered one of the original 51 cars. #1051 was purchased at the factory auction in an incomplete state, and was finished in the late 1980s using leftover Tucker parts and fiberglass replica doors. The chassis used to complete #1051 is actually from Tucker #1054.[32]	Incomplete	Butler, New Jersey	Intact	Privately owned	l Franklin O-335	Unknown	Unknown	Dark red

Chassis       Notes       Condition       Location       Status       Owner       Engine       Transmission       Front suspension version       Original body color/plant code         Tucker #1052 was not completed at the Tucker one of the original S1 car. Tucker #052 was as text chassis used at the factory for testing automatic transmission design. The car consisted of only the chasis, driveline, suspension, dashbard, and east. The car was usension, dashbard, and east. The car was usension, dashbard, and east. The car was set esting parts he collected over many year. Jong with front sheetmetal sourced from Tucker #0138. Reproduction floor pars, roof and rear doors were used.[32]       Incomplete       Unknown       Unkno		Complete Tucker 48s #0000-1050 Completed at the Tucker Factory									
Tucker 20032 was not completed at the Tucker FloS2 was not completed in the factory for testing souther step factory, so it is also not technically considered one of the original 51 cars. Tucker 21052 was not testing souther step factors, by the short, and seats. The car was completed in 2015 by Tucker enthuisats John schuler supported to find the souther and the collected over many year, along with front sheetmetal sourced from arrest over serve used [32]       Incomplete       Unknown       Unknown <td< td=""><td>Chassis number</td><td>Notes</td><td>Condition</td><td>Location</td><td>Status</td><td>Owner</td><td>Engine</td><td>Transmission</td><td>Front suspension version</td><td>Original body color/paint code</td></td<>	Chassis number	Notes	Condition	Location	Status	Owner	Engine	Transmission	Front suspension version	Original body color/paint code	
1053IncompleteUnknown <t< td=""><td>1052</td><td>Tucker #1052 was not completed at the Tucker factory, so it is also not technically considered one of the original 51 cars. Tucker #1052 was a test chassis used at the factory for testing automatic transmission designs. The car consisted of only the chassis, driveline, suspension, dashboard, and seats. The car was completed in 2015 by Tucker enthusiast John Schuler using parts he collected over many years, along with front sheetmetal sourced from Tucker #1018. Reproduction floor pans, roof and rear doors were used.[32]</td><td>Incomplete</td><td>Aurora, Indiana</td><td>Intact</td><td>Privately owned by John Schuler</td><td>Franklin O-335</td><td>Tucker Y-1</td><td>Unknown</td><td>Dark red</td></t<>	1052	Tucker #1052 was not completed at the Tucker factory, so it is also not technically considered one of the original 51 cars. Tucker #1052 was a test chassis used at the factory for testing automatic transmission designs. The car consisted of only the chassis, driveline, suspension, dashboard, and seats. The car was completed in 2015 by Tucker enthusiast John Schuler using parts he collected over many years, along with front sheetmetal sourced from Tucker #1018. Reproduction floor pans, roof and rear doors were used.[32]	Incomplete	Aurora, Indiana	Intact	Privately owned by John Schuler	Franklin O-335	Tucker Y-1	Unknown	Dark red	
1054The chassis of Tucker #1054 was used to complete Tucker #1051.[32]IncompleteUnknownUnknownUnknownUnknownUnknownUnknownUnknownUnknown1055IncompleteUnknownUnknownUnknownUnknownUnknownUnknownUnknownUnknownUnknown1056IncompleteUnknownUnknownUnknownUnknownUnknownUnknownUnknownUnknown10571057 was the prototype being worked on by Tucker designer Alex Tremulis for the 1949 model year and may be the only 1949 model still in existence. #1057 Was one of eight incomplete body shells (believed to be #1051-1058) left on the assembly line at the time the Tucker plant was closed. Photos from the factory show #1057 was being built with a "wrap around rear window" as one of the 1949 year design changes. #1057 was eventually converted in 2010, and, as of 2021, is up for auction in Rowlett, Texas for a starting bid of \$2,595,000. <sup>[121[53]</sup> IncompleteUnknownUnknownUnknownUnknownUnknownUnknown1058IncompleteUnknownUnknownUnknownUnknownUnknownUnknownUnknownUnknown1058IncompleteUnknownUnknownUnknownUnknownUnknownUnknownUnknownUnknown	1053		Incomplete	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	
1055       Incomplete       Unknown	1054	The chassis of Tucker #1054 was used to complete Tucker #1051.[32]	Incomplete	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	
1056IncompleteUnknown <t< td=""><td>1055</td><td></td><td>Incomplete</td><td>Unknown</td><td>Unknown</td><td>Unknown</td><td>Unknown</td><td>Unknown</td><td>Unknown</td><td>Unknown</td></t<>	1055		Incomplete	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	
1057 was the prototype being worked on by Tucker designer Alex Tremulis for the 1949 model year and may be the only 1949 model still in existence. #1057 was one of eight incomplete body shells (believed to be #1051–1058) left on the assembly line at the time the Tucker plant was closed. Photos from the factory show #1057 was being built with a "wrap around rear window" as one of the 1949 year design changes. #1057 was eventually converted into a convertible, completed in 2010, and, as of 2021, is up for auction in Rowlett, Texas for a starting bid of \$2,595,000. [ <sup>1021[53]</sup> Privately owned by Accelerate Auto Group       Cord 610/812       Unknown       Waltz Blue/200         1058       Incomplete       Nomelet       Rowlett, Texas       Intact       Privately owned by Accelerate Auto Group       Cord 610/812       Unknown       Waltz Blue/200	1056		Incomplete	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	
1058 Incomplete Unknown Unknown Unknown Unknown Unknown Unknown Unknown Unknown	1057	1057 was the prototype being worked on by Tucker designer Alex Tremulis for the 1949 model year and may be the only 1949 model still in existence. #1057 was one of eight incomplete body shells (believed to be #1051–1058) left on the assembly line at the time the Tucker plant was closed. Photos from the factory show #1057 was being built with a "wrap around rear window" as one of the 1949 year design changes. #1057 was eventually converted into a convertible, completed in 2010, and, as of 2021, is up for auction in Rowlett, Texas for a starting bid of \$2,595,000. <sup>[52][53]</sup>	Incomplete	Rowlett, Texas	Intact	Privately owned by Accelerate Auto Group	Franklin O-335	Cord 610/812	Unknown	Waltz Blue/200	
	1058		Incomplete	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	

# 1973 Volkswagen Type 2 Kombi 23-Window Conversion

This Volkswagen began as a 1973 Volkswagen Type 2 15-window Bus built in Brazil. It was refurbished in 2021 and converted to a "Samba-style" bus in Brazil before being imported to the US in January 2022.

Volkswagen do Brazil Ltda.; a subsidiary arm of Volkswagen Group was established when the Brazilian government banned the import of fully built vehicles in 1953. Its first president was Friedrich Schultz-Wenk who had emigrated to Brazil in 1950 after a brief stint as a prisoner of war, followed by some time in Wolfsburg. Their first plant was in Ipiranga, São Paulo and was a strict knockdown kitoperation. In two years 2268 Fuscas and 552 Kombis were assembled there by hand. After Juscelino Kubitschek's import substitution programs began taking effect as Volkswagen was compelled to open a proper factory in São Bernardo do Campo. Work on the factory began in mid-1957. Originally only the Kombi was built locally from September 1957, but from January 1959 the 1200 cc "Fusca" also entered local production, with ever-growing local parts content. In 1959, VW started production at the plant near São Paulo.

Their factory was erected in 1958 and started production of the Kombi bus. There were several versions produced by Volkswagen do Ltda. Brazil over the next 56 years, including 11, 13 and 15-window models. This bus started as a 15-window model and was later modified to replicate the Samba Deluxe (built from 1955-1958) - adding a sliding cloth sunroof and 8 windows on the roofline.







The extra windows of the original 23-window Volkswagen Deluxe Microbus model allowed relatively unobstructed views of passing scenery. As a result, the bus was often used for tourist transport was known by the nicknames Samba Bus or Alps Bus.

Brazil had the last factory in the world that produced the T2 series of Type 2, which ceased production in December 2014 due to the introduction of more stringent safety regulations in Brazil. This marked the end of the era of rear-engine Volkswagens, which originated in 1935 with their Type 1 prototypes.

The Specs...

- Air-cooled 1.5-liter (1500cc) flathead four-cylinder engine
- Four speed manual transmission
- 4-wheel drum brakes
- Approximately 31,000 miles
- Originally built by Volkswagen do Brazil as a 15-window bus

# **1978 Volkswagen Beetle Convertible**

The Volkswagen Beetle is a twodoor, rear-engine economy car, intended for five occupants but was restricted to four people in some countries. The Beetle was known by many names — it was officially the Volkswagen Type 1. Informally in German it was der Käfer (meaning "beetle"). In parts of the English-speaking world, it was known as the Bug and by many other nicknames in other languages.



The Volkswagen Beetle's origin began as Hitler's 'people car' and would go on to become an all-time best seller and a cult classic. The Beetle was manufactured and marketed by German automaker Volkswagen (VW) from 1938 until 2003.

On 30 July 2003 at 9:05 a.m., at the Puebla plant in Mexico, Volkswagen produced the final Type 1, after 21,529,464 examples were produced globally during its tenure. Its production span of 65 years is the longest of any single generation of automobile, and its total production of over 21.5 million is the most of any car of a single platform. To celebrate the occasion, Volkswagen marketed a series of 3,000 Beetles as "Última Edición" (Final Edition).

The Volkswagen New Beetle is a compact car introduced by Volkswagen in 1997, drawing heavy inspiration from the exterior design of the original Beetle. Unlike the original Beetle, the New Beetle has its engine in the front, driving the front wheels, with luggage



storage in the rear. It received a facelift in 2005 and was in production until 2011.

Next up, Volkswagen introduced (A5) in 2011 for the 2012 model year, as the successor to the New Beetle launched in 1997.

Finally, on 13 September 2018, Volkswagen announced that the Beetle production would end in July 2019. The final third generation Beetle (a denim blue coupe) finished production on 9 July 2019, and was presented on the assembly line the next day. The model was officially retired at a ceremony in Puebla City later that day.



## Specs (Some estimated):

- Cost about \$5,700 in 1978 (equal to \$27,958 in 2025)
- 1,585 cc (96.7 ci) Air Cooled OHV Flat 4 Cylinder Engine, 7.3:1 Compression, Bosch mechanical fuel injection
- Bore: 85.5 mm (3.35 in) Stroke: 69 mm (2.72 in)
- 48 hp @4,200 rpm, 75 lb-ft @2,200 rpm, Maximum rpm: About 4,700 rpm
- 4 speed manual, 3.875:1 axle ratio
- 2,129 lb (966 kg) curb weight
- Performance (Stock, estimated):
- 0-60 mph: 17.9 seconds
- 1/4 mile: 21.1 seconds @64 mph
- Top speed: ~84 mph (135 kph) @4,300 rpm
- Modifications:
- Lowered suspension
- Custom wheels
- Aftermarket radio and speakers

# 2016 WaterCar Panther

## The Panther is an amphibious car manufactured by California-based WaterCar.

The design of the Panther is based on the popular Jeep Wrangler. The vehicle is constructed from lightweight steel for the chassis and fiberglass for the body, and the "hull" is filled with 32 cubic feet of Styrofoam making it virtually unsinkable.

The top speed is 85 miles-per-hour on land and 45 miles-per-hour on the water.

On water, the Panther Jet engine located in the middle of the rear bumper is driven by the V-6 Honda engine.

In 2014, a WaterCar Panther was featured in ABC's reality television series The Bachelor. The WaterCar has also been featured in USA Network's television series Royal Pains and an episode of Jay Leno's Garage.

WaterCar is an American company that specializes in the manufacture and development of luxury amphibious vehicles. Based in Southern California, the company was founded by Dave March in 1999 when he was inspired by the Amphicar of the 1960s. March claims he originally had no plans to market an amphibious vehicle - just merely to build one. In 2013, the company released its first commercial vehicle, the Panther, which holds a top speed of 80 mph (130 km/h) on land and 45 mph (72 km/h) on water. The company holds 27 amphibious related patents as well as the Guinness World Record for the fastest









amphibious vehicle. WaterCar vehicles are designed and manufactured at Fountain Valley BodyWorks, an 85,000 square feet (7,900 m<sup>2</sup>) collision repair auto body shop in Southern California, owned and operated by March.

In 2011, March began developing a more reliable amphibious vehicle using technology from the Python and other prototypes. In June 2013, he released the Panther, the first commercial vehicle developed by WaterCar. Since its release, WaterCar has been popular in the Middle East, selling to the Embassy of the United Arab Emirates, with six additional vehicles being sold to the Crown Prince of Dubai and others sold to tech enthusiasts and residents of Silicon Valley. The Panther's price is US\$140,000 (initially US\$135,000).

Our founder and Chairman Mel Martin drove this Panther on the streets and in the bays of San Diego (see the photo below) over several years before putting it in the museum.



Specs...

- 3.7-liter V-6 engine
- 305 horsepower
- 4-speed manual transmission
- Retail cost of \$158,000 for a base Panther and \$198,000 for a custom model

## **19XX Junior Dragster Custom (\*)** From the Alexander Orzechowski Collection

A Junior Dragster is a half-scale version of the top fuel dragster. The Junior Drag Racing League (JRDL) offers kids ages 5-17 the opportunity to experience the thrill of racing dragsters in a controlled racing environment.



A Junior Dragster can go as fast as 85 mph

and as quick as 7.90 seconds in an eighth-mile, although younger competitors are restricted to slower times/speeds.

Just like their full-size Top Fuel counterparts, Junior Dragsters must meet the National Hot Rod Association (NHRA) stringent technical specifications. NHRA also places speed and elapsed-time restrictions on competitors based on their age and experience.

The NHRA requires that racers be licensed members of the JDRL and have necessary items such as an approved helmet, jacket, neck collar, and gloves. All drivers must also wear long pants and arm restraints while behind the wheel of their Jr. Dragster.

This dragster was built by Alexander "Ski" Orzechowski and raced by one of his children.

Specs...

- Briggs & Straton 206 crate engine
- 8.8 horsepower
- Approximately 14-feet long

# **#51 - RJ JOHNSON (BOBBY MARTIN CREW)**

Needs write up.

Specs...



**#69 - JIMMY NORMAN** 





# **#19 - RIEDEL STEWART RACE CARS**



# **1980 #51 - METRO PLUMBING SPRINT CAR**

1980 Metro Plumbing Sprint Car This sprint car was driven by: Russell Faucett - 1981 Arizona Rookie of the Year Billy Boat - 1982 California Racing Association Rookie of the Year (shown below) Jim Edwards - 3-time Sprint Car Owners of Arizona Champion

Specs...

- Chassis built by Gary Stanton
- 406 cubic-inch Shaver engine
- 700 horsepower
- 86-inch wheelbase
- 1,375 pounds





Revision May 20, 2025 rev U #19 - GABE & TILLIES RACING TEAM #84 DRIVER BILL SHUMAN



### Revision May 20, 2025 rev U 1950 circa, The Martin Auto Museum Mini Carousel (\*)

In 1947, two brothers, Carl and Eugene Theel, bought a corner grocery store with attached gasoline service station (what would today be called a convenience store) in Leavenworth, Kansas. Since neighborhood grocery stores were rapidly disappearing in those days due to the appearance of supermarkets with their larger stocks and lower prices, they shortly decided to close the grocery part and concentrate on the service station business, building a modern service station with an attached garage that had several bays for repairing cars. One day a local farmer stopped by to tell them he had a windmill they could have for tearing it down and removing it from his property. They took him up on the offer and ended up with several hundred pounds of very good structural steel. They were both accomplished welders, having worked in the defense industry during World War II. So, having the material and skills, they then had to figure out something to make with the materials they now had. They finally came up with the idea of making a crude airplane ride for their children to play on, using the angle iron from the windmill tower to build the basic ride structure, and used 30-gallon oil drums to make the airplanes, which had wooden



wings, tails, and seats. A used washing machine gear case and motor were used to power the ride, which worked quite well.

The owner of a local drive-in theater happened to drive by one day, saw the ride with the kids playing on it, stopped and asked if he could buy it as an addition to the playground the theater had for the kids to play on during intermission. He also wanted to buy two more for drive in theaters he had in other locations. And so began the Theel Brothers Manufacturing Company. Other rides were added to the line as time went on, with the Merry Go Round added in 1955. Around that time, Carl bought Eugene's share in the company and the name was shortened to Theel Manufacturing Company. Carl Theel passed away in 1992 and operations were taken over by his youngest son. Various events forced the company out of business in 1997. Most of the patterns and fixtures were acquired by second son Max Theel, who now produces the rides as The Theel Company.

### THE THEEL COMPANY

### 24763 Ullery Rd

### La Cygne, KS 66040

About the Mini or Kiddie Carousels of the 1950s and Traveling Carnivals

In the 1950s, small carousels were a common feature in traveling carnivals, providing amusement and entertainment for visitors of all ages. These carousels, often referred to as kiddie carousels or mini carousels, typically featured a smaller footprint compared to their larger counterparts found in permanent amusement parks.



Here are some key characteristics of small carousels from the 1950s:

1. Size and Design: Small carousels of the 1950s were designed to be portable and easy to set up and dismantle. They typically featured a limited number of seats, with fewer than 10 ornately decorated animal or vehicle figures for children to ride on. These figures were often hand-carved and painted with bright colors to attract attention.

2. Mechanical Operation: Unlike larger carousels that were often powered by electric motors, many small carousels in the 1950s were manually operated. An operator, or "carnie," would stand at the center of the carousel and manually turn a crank or lever to set the ride in motion. This hands-on approach added to the charm and simplicity of the experience.

3. Musical Accompaniment: Small carousels were often accompanied by music, typically provided by a mechanical organ grinder or similar device. The lively tunes added to the festive atmosphere of the carnival and enhanced the enjoyment of the ride for participants.



4. Portable Nature: One of the defining features of small carousels in traveling carnivals was their portability. These carousels were designed to be transported from one location to another, often being packed onto trucks or trailers along with other carnival rides and attractions. This mobility allowed carnival operators to bring the joy of the carousel to communities far and wide.

5. Affordability and Accessibility: Small carousels were popular attractions in traveling carnivals due to their relatively low cost and accessibility. Families could enjoy a ride on the carousel without breaking the bank, making it a beloved pastime for children and adults alike during the heyday of traveling carnivals in the 1950s.

Overall, small carousels of the 1950s played a significant role in the cultural landscape of traveling carnivals, providing a nostalgic and enchanting experience for generations of carnival-goers.

# A short Story of the traveling carnival carousel...

In the bustling era of the 1950s, amidst the neon glow of traveling carnivals, there was a carousel that spun tales of enchantment and joy. This carousel wasn't grand like those found in permanent amusement parks; instead, it was a modest creation, with hand-painted ponies and a simple organ grinder providing its cheerful melody.



Traveling from town to town, the carousel brought smiles to children and adults alike. Each stop brought new faces, new stories, and new adventures. The operator, an old carnie named Bud, took pride in maintaining the carousel, ensuring that every brass ring shone brightly and every pony had a fresh coat of paint.

But beyond its outward simplicity, the carousel held secrets. Legends whispered that it possessed a touch of magic, granting wishes to those pure of heart. Some claimed they saw the carousel spin faster when the moon was full, while others swore, they heard whispers of ancient tales carried on the wind.

One summer evening, a young girl named Emily stumbled upon the carousel. Drawn by its nostalgic charm, she begged Bud for a ride. As the carousel spun, Emily closed her eyes and made a wish - a wish for adventure beyond the confines of her small town.

As the final strains of the organ faded into the night, Emily felt a strange sensation. When she opened her eyes, she found herself on a magnificent steed, galloping through a forest thick with magic and mystery. Trees whispered secrets, and fireflies danced around her, lighting the way.

For hours, Emily journeyed through enchanted realms, encountering creatures of myth and legend; monkeys, zebras, horses of all colors, lions and tigers. With each passing moment, she felt her heart swell with wonder and excitement. When dawn finally broke, she found herself back at the carousel, the morning sun casting a golden glow over the carnival grounds.

Breathless and exhilarated, Emily knew that her adventure had only just begun. With a smile on her face and a newfound sense of courage in her heart, she stepped off the carousel and into the dawn of a new day, ready to explore the world beyond the carnival's borders.

And so, the small carousel of the 1950s continued its journey, weaving tales of magic and wonder wherever it roamed, leaving behind memories that would last a lifetime.

## **Automobile Industry in America**

In the United States, the automotive industry began in the 1890s and, as a result of the size of the domestic market and the use of mass production, rapidly evolved into the largest in the world. The United States was the first country in the world to have a mass market for vehicle production and sales and is a pioneer of the automotive industry and mass market production process. During the 20th century, global competitors emerged, especially in the second half of the century primarily across European and Asian markets, such as Germany, France, Italy, Japan and South Korea. The U.S. is currently second among the largest manufacturers in the world by volume.

American manufacturers produce approximately 10 million units annually. Notable exceptions were 5.7 million automobiles manufactured in 2009 (due to crisis), and more recently 8.8 million units in 2020 due to the global COVID-19 pandemic. Production peaked during the 1970s and early 2000s at 13–15 million units.

Starting with Duryea in 1895, at least 1,900 different companies have been formed, producing over 3,000 makes of American automobiles. World War I (1917–1918) and the Great Depression in the United States (1929–1939) combined to drastically reduce the number of both major and minor producers. During World War II, all the auto companies switched to making military equipment and weapons. By the end of the 1950s the remaining smaller producers disappeared or merged into amalgamated corporations. The industry was dominated by three large companies: General Motors, Ford, and Chrysler, all based in Metro Detroit. Those "Big Three" continued to prosper, and the U.S. produced three-quarters of all automobiles in the world by 1950, 8.0 million out of 10.6 million produced. In 1908, 1 percent of U.S. households owned at least one automobile, while 50 percent did in 1948 and 75 percent did in 1960. Imports from abroad were a minor factor before the 1960s.

Beginning in the 1970s, a combination of high oil prices and increased competition from foreign auto manufacturers severely affected the US companies. In the ensuing years, the US companies periodically bounced back, but by 2008 the industry was in turmoil due to the aforementioned crisis. As a result, General Motors and Chrysler filed for bankruptcy reorganization and were bailed out with loans and investments from the federal government. June 2014 seasonally adjusted annualized sales were the biggest in history, with 16.98 million vehicles and toppled the previous record of July 2006. Chrysler later merged into Fiat as Fiat Chrysler and is today a part of the multinational Stellantis group. American electric automaker Tesla emerged onto the scene in 2009 and has since grown to be one of the world's most valuable companies, producing around 1/4th of the world's fully-electric passenger cars.

Prior to the 1980s, most manufacturing facilities were owned by the Big Three (GM, Ford, Chrysler) and AMC. Their U.S. market share has dropped steadily as numerous foreignowned car companies have built factories in the U.S. As of 2012, Toyota had 31,000 U.S. employees, compared to Ford's 80,000 and Chrysler's 71,100.

#### HISTORY

The development of self-powered vehicles was accompanied by numerous technologies and components giving rise to numerous supplier firms and associated industries. Various types of energy sources were employed by early automobiles including steam, electric, and gasoline. Thousands of entrepreneurs were involved in developing, assembling, and marketing of early automobiles on a small and local scale. Increasing sales facilitated production on a larger scale in factories with broader market distribution. Ransom E. Olds and Thomas B. Jeffery began mass production of their automobiles. Henry Ford focused on producing an automobile that many middle-class Americans could afford.

A patent filed by George B. Selden on 8 May 1879 covered not only his engine but its use in a four-wheeled car. Selden filed a series of amendments to his application which stretched out the legal process, resulting in a delay of 16 years before the patent was granted on 5 November 1895. Selden licensed his patent to most major American automakers, collecting a fee on each car they produced and creating the Association of Licensed Automobile Manufacturers. The Ford Motor Company fought this patent in court, and eventually won on appeal. Henry Ford testified that the patent did more to hinder than encourage development of autos in the United States.

Originally purchased by wealthy individuals, by 1916 cars began selling at \$875. Soon, the market widened with the mechanical betterment of the cars, the reduction in prices, as well as the introduction of installment sales and payment plans. During the period from 1917 to 1926, the annual rate of increase in sales was considerably less than from 1903 to 1916. In the years 1918, 1919, 1921, and 1924 there were absolute declines in automotive production. The automotive industry caused a massive shift in the industrial revolution because it accelerated growth by a rate never before seen in the U.S. economy. The combined efforts of innovation and industrialization allowed the automotive industry to take off during this period and it proved to be the backbone of United States manufacturing during the 20th century.

#### AMERICAN ROAD SYSTEM

The practicality of the automobile was initially limited because of the lack of suitable roads. Travel between cities was mostly done by railroad, waterways, or carriages. Roads were mostly dirt and hard to travel, particularly in bad weather. The League of American Wheelmen maintained and improved roads as it was viewed as a local responsibility with limited government assistance. During this time, there was an increase in The "final" U.S. Highway plan as approved November 11, 1926

Revision May 20, 2025 rev U production of automobiles coupled with a swell of auto dealerships, marking their growth in popularity.

### STATE INVOLEMENT

State governments began to use the corvee system to maintain roads, an implementation of required physical labor on a public project on the local citizens. Part of their motivation was the needs of farmers in rural areas attempting to transport their goods across rough, barely functioning roads.

The other reason was the weight of the wartime vehicles. The materials involved altered during World War I to accommodate the heavier trucks on the road and were responsible for widespread shift to macadam highways and roadways. However, rural roads were still a problem for military vehicles, so four-wheel drive was developed by automobile manufacturers to assist in powering through. As the prevalence of automobiles grew, it became clear funding would need to improve as well, and the addition of government financing reflected that change.

### FEDERAL GOVERNMENT INVOLVEMENT

The Federal Aid Road Act of 1916 allocated \$75 million for building roads. It was also responsible for approving a refocusing of military vehicles to road maintenance equipment. It was followed by the Federal Aid Highway Act of 1921, which provided additional funding for road construction. By 1924, there were 31,000 miles of paved road in the U.S.

# Pioneers of American Automobile Industry Biography Disclaimer

Throughout the biographies of the "The Pioneers of American Automobile Industry" Many individuals, companies and influencers are named and referenced. Little to-no detail may be provided. I invite you to continue your interest in discovering the relationships and influences that these individuals and companies may have had on the history of the automobile in America. Many of these individuals and companies had strong ties to the European innovators and entrepreneurs there too lies some very interesting stories.

# Enjoy the Ride.

Credit to the contributors of Wikipedia as this is where 99% of the information came from.

## William C. Durant - GM

William Crapo Durant (December 8, 1861 – March 18, 1947) was a leading pioneer of the United States automobile industry, founder of General Motors and co-founder of Chevrolet. He created a system in which a company held multiple marques – each seemingly independent, with different automobile lines – bound under a unified corporate holding company. Durant founded General Motors and co-founded Chevrolet with Louis Chevrolet. He also founded Frigidaire.

Durant was born in Boston, Massachusetts on December 8, 1861. He was the second child of William Clark Durant and Rebecca Folger Durant (née Crapo), who was born to a wealthy



Massachusetts family of French descent. His mother, Rebecca, was the daughter of Michigan governor Henry H. Crapo, who was also of French descent. Durant's family moved to Flint, Michigan after his father abandoned the family in 1869. They lived with Rebecca's sister, Rhoda, and her husband James Wilson. William dropped out of high school to work in his grandfather's lumberyard. He started out as a cigar salesman in and eventually founded his own carriage company.

In 1886, Durant partnered with Josiah Dallas Dort and founded Flint Road Cart Company, eventually transforming \$2,000 (\$67,822 in 2023 dollars) in start-up capital into a \$2-million company with worldwide sales (\$67,822,222 in 2023 dollars). By 1890, the Durant-Dort Carriage Company, based in Flint, had become a leading manufacturer of horse-drawn vehicles and by the start of the 20th century, was the largest in the US.

Durant was highly skeptical of automobiles, feeling that the bad smell of burnt fuel, along with the engines' loud sounds, made them inherently dangerous to the point where he would not let his daughter ride in one. By 1900, public outcry over weak government regulation of gasoline-powered horseless carriages was significant. Durant noticed the general public's anger at this situation, and rather than relying on government regulations to improve their safety, he saw it as an opportunity to create a company which could improve the safety of this new class of transportation. To begin this massive endeavor, Durant first set out to purchase Buick, then a local car company with few sales and large debts.

Durant conceived the modern system of automobile dealer franchises.

# **Buick**

From his holdings in Durant-Dort Carriage Company, Durant was a millionaire. On November 1, 1904, he assumed control of the troubled Buick Motor Company and used the financial and manufacturing resources of Durant-Dort to correct Buick's course. With Durant pushing and marketing the Buick name, the company was able to become the best-selling automobile in America, outperforming earlier leaders Ford Motor Company, Cadillac, and Oldsmobile, and despite having no manufacturing line and only a few extant cars, orders tallied over 1100 - all of this by the time of the 1905 New York Automobile Show. Durant and Samuel McLaughlin, McLaughlin's being the largest carriage manufacturer in Canada, signed a 15-year contract to build Buick power trains at cost-plus pricing.

# **General Motors**

With Buick as a base, Durant envisioned creating a large automobile company that would manufacture several makes and control subsidiary component-making companies, much as Durant-Dort had done in the carriage-making world. Durant founded General Motors Holding Company on September 16, 1908 and exchanged a large parcel of Buick stock for a matching parcel of McLaughlin stock making McLaughlin one of General Motors' biggest shareholders. On November 12, 1908, Durant purchased Olds Motor Works (Oldsmobile).

Durant consolidated 13 car companies and 10 parts-and-accessories manufacturers under the new holding company's control in 1908. In 1909, Durant's GM bought Cadillac, and Oakland Motor Car (eventually replaced by Pontiac), along with many parts-manufacturing companies, paint and varnish companies, and other accessory manufacturers owned by General Motors. By 1910, the rapid-fire acquisitions Durant had made caught up with the business, which caused Durant and the corporation to have become grossly overextended with so many imprudent acquisitions. The corporation faced a cash shortage, and in the aftermath, Durant was forced out of the company.

But Durant would not be bowed, and he backed Louis Chevrolet's eponymous company in 1911, with J. Dallas Dort as the vice-president and

director of the company. In 1913, Dort stepped down as vice-president of Chevrolet, and in 1914 Durant disposed of his share of the Durant-Dort Carriage Company. By 1916, Durant had leveraged Chevrolet's sales to regain control of General Motors, and he went on to lead GM until 1920.

## **Other acquisitions**

On October 26, 1909, General Motors Holding acquired the Cartercar Company, founded four years earlier in Jackson, Michigan, by Byron J. Carter. In explaining the reason he purchased Cartercar, Durant said:

"They say I shouldn't have bought Cartercar. Well, how was anyone to know that Carter wasn't to be the thing? It had the friction drive and no other car had it. How could I tell what these engineers would say next?" By the time Durant had regained control of General Motors in 1916, the GM board had already decided to discontinue the Cartercar, largely because sales never approached the 1000-2000 annually that Durant had predicted. The GM board decided to use the factory instead to produce the Oakland.

Durant had arranged an \$8 million deal to buy Ford in 1909, but the bankers turned him down and the board of directors of General Motors dismissed him.

Both Durant and rival Henry Ford foresaw the automobile becoming a massmarket item. Ford followed the course of the basic Model T, and had said "Any customer can have a car painted any color that he wants so long as it is black." Durant, however, drawing on his experience in the carriage business, sought to create automobiles targeted to various incomes and tastes. This brought about his plans to merge Buick with various other companies for this purpose.

# Chevrolet

When Durant became financially overextended and banking interests assumed control, forcing him out of GM Holding, in 1910, he immediately set out to create "another GM", starting with the Little car, named after its founder, William H. Little. His initial intention was to compete with the Ford Model T, which was beginning the start of its impending popularity. Unsatisfied with this approach, he dropped it. In Canada, on 30 September 1910, after obtaining a loan of \$52,935.25 (\$1,730,983 in 2023 dollars) (cosigned by R S McLaughlin), went into partnership with Louis Chevrolet in 1911, starting the Chevrolet company. In 1914, a disagreement with Louis Chevrolet resulted in Durant buying out his partner. Durant went to

McLaughlin in 1915 to put Chevrolet in Canada and with the shares being bought up at 5-to-1 and 7-to-1, McLaughlin and Durant with other shareholders had enough stock to reclaim Durant's old job. McLaughlin had no problem with his friend back at the helm; he went on building Chevrolet and built his Buicks in Canada without conflict with his Buick contract. General Motors Corporation was started at this time with Durant putting Pierre du Pont in charge, with McLaughlin Director and Vice President of the newly incorporated General Motors Corporation in 1918.

The venture proved highly successful for Durant, and he was able to buy enough shares in GM to regain control, becoming its president in 1916. During his presidency (1916–1920), Durant brought the Chevrolet product line into the corporation (1919), as well as Fisher Body and Frigidaire. In 1920, he finally lost control of GM to the DuPont and McLaughlin shareholders, paying out \$21,000,000 (\$319,395,349 in 2023 dollars) back to his friends.

Following the US entry into World War I in 1917, Durant, who detested war, declared that GM would not participate in defense work. He ran afoul of Cadillac founder Henry Leland, who was an ardent patriot and eager to assist in the US war effort. Leland left GM and founded the Lincoln Motor Company, which received contracts to build Liberty aircraft engines.

While in charge of Chevrolet, Durant created other companies, including Republic Motors, mainly to produce Chevrolet.

He was inducted into the Automotive Hall of Fame in 1968.

## **Durant Motors**

In 1921, Durant established a new company, Durant Motors, initially with one brand. Within two years, it had several marques (including the Durant, Star (also called Rugby), Flint, and Eagle), rivalling the range offered by General Motors. Part of the new empire included a factory in Leaside, Ontario, for Canadian production.

As he had with General Motors, Durant acquired a range of companies whose cars were aimed at different markets, and therefore, levels of affordability and luxury. The lowest ('entry' tier) was the Star, aimed at the person who would otherwise buy the Ford Model T. Durant cars were midmarket, and the company's entire structure was purposefully very similar with GM; the Princeton line (designed, prototyped, and marketed but never produced) competed with Packard and Cadillac, the ultraluxurious Locomobile being top of the line. Durant was unable to duplicate

his former success, and the financial woes of the Wall Street Crash of 1929 and the ensuing Great Depression ultimately proved to be insurmountable, and the company failed in 1933.

# **Ransom E. Olds - Oldsmobile**

Ransom Eli Olds (June 3, 1864 – August 26, 1950) was a pioneer of the American automotive industry, after whom the Oldsmobile and REO brands were named. He claimed to have built his first steam car as early as 1887 and his first gasoline-powered car in 1896. The modern assembly line and its basic concept is credited to Olds, who used it to build the first mass-produced automobile, the Oldsmobile Curved Dash, beginning in 1901.

### EARLY LIFE

Olds was born in Geneva, Ohio, the youngest son of blacksmith and pattern-maker Pliny Fiske Olds and his wife, Sarah Whipple Olds. He was of English descent, with origins



in Dorset, England. His parents moved the family to Cleveland, Ohio, when Olds was still a boy. He eventually settled in Lansing, Michigan, where he attended high-school before dropping out so that he could work full-time at the family company, P.F. Olds & Son. The company built and sold some steam engines but made most of its money doing repair work. While in Lansing he also married Metta Ursula Woodward on June 5, 1889.

### CAREER

He founded the Olds Motor Vehicle Company in Lansing, Michigan, on August 21, 1897. The company was bought by a copper and lumber magnate named Samuel L. Smith in 1899 and renamed Olds Motor Works. The new company was relocated from Lansing to Detroit. Smith became president while Olds became vice president and general manager.

By 1901 Olds had built 11 prototype vehicles, including at least one of each power mode: steam, electricity and gasoline. In 1934, he received a patent for a diesel engine. He was the only American automotive pioneer to produce and sell at least one of each mode of automobile.

On March 9, 1901, the Olds Motor Works factory burned to the ground. Only one model, the little Curved Dash runabout, was saved from the flames. Ransom Olds claimed it was the fire that made him select the runabout, from among his many other models, to put into production. His biographer questions the veracity of this story. He points to an Olds advertising blitz that had already led to more than 300 Curved Dash orders even before the fire took place. "Olds did not need the one rescued car from which to reconstruct the plans and patterns for the runabout."

Later that year, Olds had his company's test driver, Roy Chapin, drive a Curved Dash runabout to the second annual New York Automobile Show. Along the way, Chapin opted to drive up onto the Erie Canal tow path to escape the mire of New York state roads. After eight days of driving, he reached the Waldorf Astoria hotel but was turned away at the door. His mud-spattered attire was so disreputable that he was sent to the servants' entrance in back.

During the auto show Olds pushed hard to make sales. When one dealer offered to purchase 500, Olds retorted, "I would like to see you make this order for a thousand

cars. Then the public would drop its jaw and take notice." The deal was signed, and though the dealer ended up selling only 750 to the public, it was the original number that everyone remembered.

The Curved Dash Oldsmobile sold for \$650, equal to \$23,806 today. About 600 were sold in 1901, about 3,000 in 1902 and at least 4,000 in 1904. It was this car, rather than Henry Ford's Model T, that was the first mass-produced, low-priced American motor vehicle.

As Smith's son, Frederic L. Smith, came into the business, he and Olds clashed frequently until Fred Smith removed Olds from the position of vice president and general manager in 1904, and Olds left his company. He went on to form the R.E. Olds Motor Car Company. Its name was quickly changed to REO Motor Car Company to avoid a lawsuit from the Olds Motor Works. The name REO came from the initials of his name, but was intended to be an acronym, and thus pronounced as a word. Sometimes it was spelled as "Reo" to emphasize this pronunciation. Olds served as president (until 1925) and later chairman of REO. The band REO Speedwagon took its name from the REO Speed Wagon light delivery truck, an ancestor of pickup trucks, though the band pronounces each letter in REO individually rather than pronouncing REO as a word.

The Olds Motor Works was bought by General Motors in 1908. General Motors discontinued the Oldsmobile brand in 2004, after 107 years in business.

In 1946, Ransom Olds started building lawnmowers as the Lawn Mower Division of REO motors.
## **David Dunbar Buick - Buick Motor Company**

David Dunbar Buick (September 17, 1854 – March 5, 1929) was a Scottish-

born American inventor, widely known for founding the Buick Motor Company. He headed this company and its predecessor from 1899–1906, thereby helping to create one of the most successful nameplates in United States motor vehicle history.

Buick quit school and worked for a company which made plumbing goods. When the company ran into trouble in 1882, he and a partner purchased it. At this time, Buick began to show his promise as an inventor, producing many innovations including a lawn sprinkler and a method for permanently coating cast iron with vitreous enamel which allowed the production of "white" baths at lower cost (although cast iron baths are uncommon nowadays, the method is still in



use for enameling them). With the combination of Buick's innovation and his partner's sound business management, the company became quite successful.

During the 1890s, Buick developed an interest in internal combustion engines and began experimenting with them. He was spending little time on the plumbing business, and his business partner became impatient with him. The partnership was dissolved, and the company was sold.

Buick now had the time and capital to work on engines full-time, and he set up a new company, the Buick Auto-Vim and Power Company, in 1899 to do so. The stated aim of the company was to market engines for agricultural use. Buick soon turned to the development of a complete car, rather than just an engine. He also concentrated on research and development at the expense of manufacturing and sales. The result was that he consumed his capital by early-1902 without having generated any significant return, only a single car.

In early-1902, he established the Buick Manufacturing Company, with the objectives of marketing engines to other car companies, and manufacturing and selling its own cars. Manufacturing and development problems ensued,

and, at the end of 1902, Buick was out of money with only one car to show for his work. The concentration on development had produced the revolutionary "Valve-in-Head" overhead valve engine. This method of engine construction produces a much more powerful engine than the rival side valve engine design used by all other manufacturers at the time. Overhead valve engines are used by most car manufacturers today, but now only General Motors (GM) and Chrysler produce the "push-rod" variant with any regularity. Since overhead cam engines are design variants of overhead valve engines, all modern engines are derivatives of Buick's invention.

The money ran out again, and in 1903 Buick was forced to raise more money via a \$5,000 loan (equivalent to \$170,000 in 2023) from a friend and fellow car enthusiast, Benjamin Briscoe. With this financial help, Buick formed the Buick Motor Company, which would eventually become the cornerstone of the General Motors empire.

In 1906, Buick accepted a severance package and left the company that he had founded, with only one share of the company in his possession. Then president of Buick, William C. Durant, bought this share from him for \$100,000 (equivalent to \$3,400,000 in 2023).

After unsuccessful investments in California oil and Florida land, and an attempt (with his son Tom) to manufacture carburetors, Buick made a brief return to the automotive business in 1921, as president of the short-lived Lorraine Motors, and in 1923 with the design of the Dunbar, an automobile prototype.

In an interview with historian Bruce Catton in 1928, Buick admitted that he was almost completely broke, unable to even afford a telephone, and worked as an instructor at the Detroit School of Trades. He died of colon cancer on March 5, 1929, at the age of 74 and was buried at Woodmere Cemetery in Detroit.

Commentator Theodore F. McManus noted that "Fame beckoned to David Buick. He sipped from the cup of greatness, and then spilled what it held." In 2000, automotive historian Vincent Curcio observed that "To date, over 35,000,000 motor cars have been built in his name, which will never be lost to history."

He was inducted into the Automotive Hall of Fame in 1974.

### Louis Chevrolet - Chevrolet Motor Company

Louis-Joseph Chevrolet was born on December 25, 1878, in La Chaux-de-Fonds, a center of watchmaking in northwestern Switzerland. He was the second child of Joseph-Félicien Chevrolet, a watchmaker, and Marie-Anne Angéline Mahon. His family was originally from Bonfol, now in the canton of Jura. Louis was an American racing driver, mechanic and entrepreneur who co-founded the Chevrolet Motor Car Company in 1911.

In 1887, Chevrolet left Switzerland along with his father to settle in Beaune, France. There, as a young man, he developed his mechanical skills and interest in bicycle racing. During this period, Chevrolet invented a wine pump,



which he built from a defective one-cylinder motor mounted on a threewheeled bicycle.

Chevrolet worked at the Roblin mechanics shop in Beaune from around 1889 to 1899. He then moved to Paris, where he worked at various mechanics shops, between 1899 and 1900, before emigrating to Montreal, Quebec, Canada in 1900 to work as a mechanic. The following year, he moved to New York City, where he worked briefly for a fellow Swiss immigrant's engineering company, then moved to the Brooklyn operations of the French car manufacturer de Dion-Bouton.

In 1905, Chevrolet won his first race, racing a Fiat at Morris Park, the firstever national championship race sanctioned by the American Automobile Association (AAA) Contest Board, then known as the Racing Board. In 1907 he was hired by the Autocar Company in Philadelphia, probably for a secret project to develop a revolutionary front-wheel-drive racing car.

His racing career continued as he drove for Buick, becoming a friend and associate of Buick owner William C. Durant, (more detail on Durant under founder of GM) founder of General Motors. He raced at the Giants Despair Hillclimb in 1909. With little in the way of formal education, Chevrolet learned car design while working for Buick and started designing his own

engine for a new car in 1909. He built an overhead valve six-cylinder engine in his own machine shop on Grand River Boulevard in Detroit. He is credited as one of three co-designers of the 1910 Buick 60 Special, also known as the "Buick Bug".

On November 3, 1911, Chevrolet co-founded the Chevrolet Motor Car Company with his brother Arthur Chevrolet, William C. Durant, and investment partners William Little (maker of the Little automobile) and Dr. Edwin R. Campbell, son-in-law of Durant and friend of Samuel McLaughlin of the McLaughlin Car Company of Canada Ltd. The company was established in Detroit. One story tells the choosing of the company's logo as a modified Swiss cross, to honor Chevrolet's homeland. Another story tells of the Chevrolet logo as a design taken from the wallpaper of a Paris hotel room where Louis once stayed.

Chevrolet had differences with Durant over the car's design, and in 1915 sold Durant his share in the company and started McLaughlin's Company in Canada building Chevrolets. By 1916 the trading of Chevrolet stock for GM Holding stock enabled Durant to repurchase a controlling stake in General Motors, and by 1917 the Chevrolet company that Louis had co-founded was merged as a company into General Motors after the outstanding Chevrolet stocks were purchased from McLaughlin in 1918. The McLaughlin Car Company then merged with his Chevrolet Motor Company of Canada Ltd. to become General Motors of Canada Ltd. in 1918, prior to the incorporation of the General Motors Corporation in the United States when General Motors Company of New Jersey dissolved.

In 1916, Louis Chevrolet and his brothers founded the Frontenac Motor Corporation to make racing parts for Ford Model Ts.

Also in 1916, American Motors Corporation (unrelated to the later American Motors created by the 1954 merger of Nash-Kelvinator

Corporation and Hudson Motor Car Company) was formed in Newark, New Jersey, with Louis Chevrolet as vice president and chief engineer. By 1918 it was producing cars in a plant at Plainfield, New Jersey. In 1923 it merged with the Bessemer Motor Truck Company of Pennsylvania into Bessemer-American Motors Corporation, which lasted less than a year before merging with the Winther and Northway companies into Amalgamated Motors. The latter company apparently ceased soon after.

By the mid-1910s, Chevrolet had shifted into the car racing industry, partnering with Howard E. Blood of Allegan, Michigan, to create the Cornelian racing car, which he used to place 20th in the

1915 Indianapolis 500 automobile race. In 1916, he and his younger brothers Gaston and Arthur Chevrolet started Frontenac Motor Corporation, designing and producing a line of racing cars. They became well known for, among other things, their Fronty-Ford racers.

Chevrolet drove in the Indianapolis 500 four times, with a best finish of 7th in 1919. Both Louis and Gaston competed successfully with racing Sunbeams, achieving a number of third places in 1916. Arthur competed twice, and Gaston won the Indianapolis 500 in 1920 in one of their Frontenacs, going on to win the 1920 AAA National Championship. He also raced for the Buick racing team.

In 1927, Chevrolet launched the aircraft engine construction company Chevrolair, which failed three years later as a result of the Great Depression. He returned to Chevrolet to work as mechanic in the Detroit factories.

Chevrolet died on June 6, 1941, in Detroit due to a heart attack. His atherosclerosis had previously led to a leg amputation. He is buried in the Holy Cross and Saint Joseph Cemetery in Indianapolis, Indiana.

# Henry Leland - Cadillac and Lincoln

Henry Martyn Leland (February 16, 1843 – March 26, 1932) was an American machinist, inventor, engineer, and automotive entrepreneur. He founded the two premier American luxury automotive marques, Cadillac and Lincoln.

### **Early years**

Henry M. Leland was born to Leander and Zilpha, the youngest of 8, in Vermont in 1843. Sources differ on the town of his birth (Danville versus Barton); he grew up in Barton. He learned engineering and precision machining in the Brown & Sharpe plant at Providence, Rhode Island. He subsequently worked in the firearms industry, including at Colt. These experiences



in toolmaking, metrology, and manufacturing steeped him in the 19thcentury zeitgeist of interchangeability.

He applied this expertise to the nascent motor industry as early as 1870 as a principal in the machine shop Leland & Faulconer, and later was a supplier of engines to Ransom E. Olds's Olds Motor Vehicle Company, later to be known as Oldsmobile. He also invented the electric barber clippers, and for a short time produced a unique toy train, the Leland-Detroit Monorail.

## Cadillac

Leland created the Cadillac automobile, later bought out by General Motors. In 1902, William Murphy and his partners at the Henry Ford Company hired Leland to appraise the company's factory and tooling prior to liquidation. Leland completed the appraisal, but he advised Murphy and his partners that they were making a mistake to liquidate, and suggested they instead reorganize, building a new car powered by a single-cylinder engine Leland had originally developed for Oldsmobile. The directors lost no time in renaming the company Cadillac. At Cadillac, Leland applied many modern manufacturing principles to the fledgling automotive industry, including the use of interchangeable parts. Alfred P. Sloan, longtime president and chair of General Motors, considered Leland to be "one of those mainly responsible for bringing the technique of interchangeable parts into automobile manufacturing." The Cadillac won the Dewar Trophy for 1908, which was actually presented in 1909.

Leland sold Cadillac to General Motors on July 29, 1909, for \$4.5 million, but remained as an executive until 1917. With Charles Kettering, he developed a self-starter for the Cadillac, which won its second Dewar Trophy in 1913 as a result. He prodded Kettering to design a workable electric starter after Byron Carter, a Cadillac engineer, was hit in the head by a starting crank when the engine backfired which later resulted in death.

He left General Motors in a dispute with company founder William C. Durant over producing materiel during World War I. Cadillac had been asked to build Liberty aircraft engines but Durant was a pacifist.

### Lincoln

Leland formed the Lincoln Motor Company in 1917 with a \$10,000,000 wartime contract to build the V12 Liberty aircraft engine. After the war, the company was reorganized, and the Lincoln Motor Company Plant was retooled to manufacture luxury automobiles. The V8 engine used in the first Lincoln automobiles is said to be influenced by the Liberty engine's design.

In 1922, Lincoln became insolvent and was bought out by Henry Ford's Ford Motor Company. Ford's bid of \$8 million was the only bid at a receiver's sale. Ford had first offered \$5 million, but the judge would not accept it for a well-equipped company whose assets were conservatively estimated at \$16 million. Ford deliberately low-balled his offer as revenge against Leland's role in the creation of Cadillac.

After the sale, Leland and his son Wilfred continued to run the company, believing they would still have full control to run the company as they saw fit. Ford assigned a number of their people to Lincoln, they said to learn. However, it soon became clear they were there to streamline their production and stop the loss of money that had bankrupted Lincoln. Relations between the Henry Ford and Leland workers continued to deteriorate.

On June 10, 1922, Ford executive Ernest Liebold arrived at Lincoln to ask for the resignation of Wilfred Leland. When it became clear that Liebold had the full authority of Henry Ford, Henry Leland resigned as well. That afternoon both men were shown out of the factory they had created.

The Lincoln continues to be part of the luxury line of Ford to the present. Leland had no connection to the Lincoln Motor Car Works, a marque sold by Sears-Roebuck from 1905 to 1915.

### **Politics**

Progressivism in Detroit was energized by upper-middle-class men and women who felt a civic duty to uplift society by freeing it from the tyranny of corrupt politicians who worked hand in hand with unscrupulous saloonkeepers. Leland was an important leader, with his base in the Detroit Citizens League. Supported by Detroit's business, professional, and Protestant religious communities, the League campaigned for a new city charter in 1918, an anti-saloon ordinance, and the open shop whereby a worker could get a job even if he did not belong to a labor union.

## Henry Ford - Ford Motor Company

### Henry Ford was an

American industrialist and business magnate. As the founder of the Ford Motor Company, he is credited as a pioneer in making automobiles affordable for middle-class Americans through the system that came to be known as Fordism. In 1911 he was awarded a patent for the transmission mechanism that would be used in the Model T and other automobiles.

Ford was born in a farmhouse in Springwells Township, Michigan, and left home at the age of 16 to find work in Detroit. It was a few years before this



time that Ford first experienced automobiles, and throughout the latter half of the 1880s, he began repairing and later constructing engines, and through the 1890s worked with a division of Edison Electric. He founded the Ford Motor Company in 1903 after prior failures in business, but success in constructing automobiles.

The introduction of the Ford Model T automobile in 1908 is credited with having revolutionized both transportation and American industry. As the sole owner of the Ford Motor Company, Ford became one of the wealthiest persons in the world. He was also among the pioneers of the five-day workweek. Ford believed that consumerism could help to bring about world peace. His commitment to systematically lowering costs resulted in many technical and business innovations, including a franchise system, which allowed for car dealerships throughout North America and in major cities on six continents.

Ford was known for his pacifism during the first years of World War I, although during the war his company became a major supplier of weapons. He promoted the League of Nations. In the 1920s Ford promoted antisemitism through his newspaper The Dearborn Independent and the book The International Jew. He opposed his country's entering World War II, and served for a time on board of the America First Committee. After his son Edsel died in 1943 Ford resumed control of the company, but was too frail to make decisions and quickly came under the control of several of his subordinates. He turned over the company to his grandson Henry Ford II in 1945. Upon his death in 1947 he left most of his wealth to the Ford Foundation, and control of the company to his family.

# EARLY LIFE

Henry Ford was born July 30, 1863, on a farm in Springwells Township, Michigan. His father, William Ford (1826–1905), was born in County Cork, Ireland, to a family that had emigrated from Somerset, England in the 16th century. His mother, Mary Ford (née Litogot; 1839–1876), was born in Michigan as the youngest child of Belgian immigrants; her parents died when she was a child and she was adopted by neighbors, the O'Herns. Henry Ford's siblings were John Ford (1865-1927); Margaret Ford (1867–1938); Jane Ford (c. 1868–1945); William Ford (1871–1917) and Robert Ford (1873–1877). Ford finished eighth grade at a one-room school, Springwells Middle School. He never attended high school; he later took a bookkeeping course at a commercial school.

His father gave him a pocket watch when he was 12. At 15, Ford dismantled and reassembled the timepieces of friends and neighbors dozens of times, gaining the reputation of a watch repairman. At twenty, Ford walked four miles to their Episcopal church every Sunday.

Ford said two significant events occurred in 1875 when he was 12: he received the watch, and he witnessed the operation of a Nichols and Shepard Road engine, "...the first vehicle other than horse-drawn that I had ever seen".

Ford was devastated when his mother died in 1876. His father expected him to take over the family farm eventually, but he despised farm work. He later wrote, "I never had any particular love for the farm—it was the mother on the farm I loved."

In 1879, Ford left home to work as an apprentice machinist in Detroit, first with James F. Flower & Bros., and later with the Detroit Dry Dock Co. In 1882, he returned to Dearborn to work on the family farm, where he became adept at operating the Westinghouse portable steam engine. He was later hired by Westinghouse to service their steam engines.

In his farm workshop, Ford built a "steam wagon or tractor" and a steam car, but thought "steam was not suitable for light vehicles," as "the boiler was dangerous." Ford also said that he "did not see the use of experimenting with electricity, due to the expense of trolley wires, and "no storage battery was in sight of a weight that was practical." In 1885, Ford repaired an Otto engine, and in 1887 he built a four-cycle model with a oneinch bore and a three-inch stroke. In 1890, Ford started work on a twocylinder engine. Ford said, "In 1892, I completed my first motor car, powered by a twocylinder four horsepower motor, with a two-and-half-inch bore and a sixinch stroke, which was connected to a countershaft by a belt and then to the rear wheel by a chain. The belt was shifted by a clutch lever to control speeds at 10 or 20 miles per hour, augmented by a throttle. Other features included 28-inch wire bicycle wheels with rubber tires, a foot brake, a 3gallon gasoline tank, and later, a water jacket around the cylinders for cooling. Ford added that "in the spring of 1893 the machine was running to my partial satisfaction and giving an opportunity further to test out the design and material on the road." Between 1895 and 1896, Ford drove that machine about 1000 miles. He then started a second car in 1896, eventually building three of them in his home workshop.

# CAREER

In 1891, Ford became an engineer with the Edison Illuminating Company of Detroit. After his promotion to Chief Engineer in 1893, he had enough time and money to devote attention to his experiments on gasoline engines. These experiments culminated in 1896 with the completion of a selfpropelled vehicle, which he named the Ford Quadricycle. He test-drove it on June 4. After various test drives, Ford brainstormed ways to improve the Quadricycle.

Also in 1896, Ford attended a meeting of Edison executives, where he was introduced to Thomas Edison. Edison approved of Ford's automobile experimentation. Encouraged by Edison, Ford designed and built a second vehicle, completing it in 1898. Backed by the capital of Detroit lumber baron William H. Murphy, Ford resigned from the Edison Company and founded the Detroit Automobile Company on August 5, 1899. However, the automobiles produced were of a lower quality and higher price than Ford wanted. Ultimately, the company was not successful and was dissolved in January 1901.

With the help of C. Harold Wills, Ford designed, built, and successfully raced a 26-horsepower automobile in October 1901. With this success, Murphy and other stockholders in the Detroit Automobile Company formed the Henry Ford Company on November 30, 1901, with Ford as chief engineer. In 1902, Murphy brought in Henry M. Leland as a consultant; Ford, in response, left the company bearing his name. With Ford gone, Leland renamed the company the Cadillac Automobile Company.

Teaming up with former racing cyclist Tom Cooper, Ford also produced the 80+ horsepower racer "999," which Barney Oldfield was to drive to victory

in a race in October 1902. Ford received the backing of an old acquaintance, Alexander Y. Malcomson, a Detroit-area coal dealer. They formed a partnership, "Ford & Malcomson, Ltd." to manufacture automobiles. Ford went to work designing an inexpensive automobile, and the duo leased a factory and contracted with a machine shop owned by John and Horace E. Dodge to supply over \$160,000 in parts. Sales were slow, and a crisis arose when the Dodge brothers demanded payment for their first shipment.

## **Alexander Winton - Winton Motor Carriage Company**

Alexander Winton (June 20, 1860 – June 21, 1932) was a Scottish-American bicycle, automobile, and diesel engine designer and inventor, as well as a businessman and racecar driver. Winton founded the Winton Motor Carriage Company in 1897 in Cleveland, Ohio, making the city an important hub of early automotive manufacturing. His pioneering achievements in the automotive industry included taking one of the first long-distance journeys in America by car and developing one of the first



commercial diesel engines. Winton left the automotive manufacturing business when he liquidated his car company in 1924 to focus on his powertrain engineering firm, Winton Gas Engine & Mfg. Co., which he had established twelve years earlier to focus on engine development. This business was sold to General Motors in 1930 and became the Cleveland Diesel Engine Division. Winton died in 1932 and is interred in Lake View Cemetery in Cleveland.

# EARLY LIFE

Winton was born in Grangemouth, Scotland. His father (also named Alexander) was a marine engineer, and young Alexander followed in his father's profession. He emigrated to the United States in 1879. For three years he worked at Delameter Iron Works, and for two years thereafter as a marine engineer on ocean vessels.

The Winton Motor Carriage Company factory covered 13 acres and employed 1200 workers in 1903.

In 1891, he founded Winton Bicycle Co., and in 1897 he founded the Winton Motor Carriage Company, a year after he had built his first motorcar. In July 1897 Winton embarked on one of the first long-distance journeys by car in America, traveling from Cleveland to New York City over the course of nine days. The purpose of the journey was twofold: Winton wanted to prove the reliability of his automobile, and he also sought to entice investors and enhance publicity. Winton took a similar and better-publicized journey in 1899.

On March 4, 1898, Winton sold a car to Robert Allison of Port Carbon, Pennsylvania, for approximately \$1000. The transaction is considered one of the first commercial sales of a domestic gas-powered vehicle in America.

Another early Winton customer was James Ward Packard. Purportedly, after being disappointed by the quality and performance of his Winton automobile, Packard contacted Winton to express his concerns, and provide suggestions and improvements. Winton then challenged him to build a better car. The affronted Packard did so, establishing the Packard Motor Car Company in 1899.

Also in 1898, Henry Ford was recommended by Winton's chief engineer for a position in the company. After interviewing him, Winton was unimpressed and did not to hire him. Three years later, in 1901, Henry Ford defeated him at a race at Grosse Pointe, Michigan. By 1908, Henry Ford had introduced the Ford Model T, which revolutionized automotive and American history.

Winton invented the world's first semi-truck in 1898 and sold his first manufactured semi-truck in 1899. When he started manufacturing cars, he wanted to ship them directly to customers without putting mileage on them. Hence, he developed a car hauler, and soon was selling car haulers to other manufacturers. This is the first instance of a semi-trailer truck product.

The Winton Motor Carriage Company grew rapidly after the turn of the 20th century. In 1902 three buildings were built, and four more were added in 1903. The company employed 1200 workers in 1903.

Winton was a member of Association of Licensed Automobile Manufacturer (ALAM), an organization formed to challenge the litigation of the fledgling automobile industry by George B. Selden and the Electric Vehicle Company.

In 1912, Winton founded the Winton Gas Engine & Mfg. Co. After producing the first marine engine Winton designed, the company switched to producing diesel engines based on a European design. The business was renamed Winton Engine Works in 1916, and focused on marine and locomotive diesel engines. Winton relinquished leadership in 1928. By 1930 the company was sold to General Motors, and was renamed Cleveland Diesel Engine Division.

Winton was a prolific inventor, with over 100 patents in the fields of motor cars and engines. He also had several bicycle inventions. He allowed free use of his patents when a question of safety was involved.

## **Charles and Frank Duryea - Duryea Motor Wagon Company**

The Duryea brothers, Charles Duryea (December 15, 1861 – September 28, 1938) and J. Frank Duryea were early pioneers in the automobile industry. The brothers grew up in the town of Wyoming, Illinois. Together, they built the first American gasoline-powered automobile, eight years after the invention of the gasoline-powered automobile by Carl Benz.

James Frank Duryea (October 8, 1869 – February 15, 1967) was an American engineer and inventor who, with his brother.

The two brothers researched the internal combustion engine at the Springfield public library. Charles drew the designs and made the connection with their chief investor, Erwin Markham. Markham provided \$1,000, which paid for space in an old machine shop, a collection of cast-off parts, including an old phaeton buggy, and Frank's \$3-a-day salary. Charles went back to Illinois to follow other pursuits.

Frank worked ten hours a day to make Charles's design a reality. Over the course of four road tests, Frank changed those designs in significant ways. By trial-anderror, Frank worked out problems of ignition, carburetion, and transmission. He devised a method of muffling the engine's extreme noise with a wooden box. In





January 1894 Frank made what he believed was his first successful road test.

A total of three times Erwin Markham agreed to provide money, but when it came time to put the vehicle in production he backed out. 175 other investors stepped forward to buy \$100 shares. Frank was awarded 160 shares, and Charles was given 320. The Duryea Motor Wagon Company was

established in 1895. It was incorporated in September 1895, two months before the Chicago Times-Herald race.

Founded by Charles Duryea and his brother Frank, the company built the Duryea Motor Wagon, a one-cylinder four-horsepower car, first demonstrated on September 21, 1893, in Springfield, Massachusetts, on Taylor Street in Metro Center. It is considered the first successful gasengine vehicle built in the U.S.

In 1895, a second Duryea (built in 1894), driven by Frank, won the Chicago Times Herald race in Chicago on a snowy Thanksgiving Day. He traveled 54 miles (87 km) at an average speed of 7.5 mph (12 km/h), marking the first U.S. auto race in which any entrants finished. That same year, the brothers began commercial production, with thirteen cars sold by the end of 1896. Their first ten production vehicles were the first automobiles sold in the United States. Banking on the idea that future racing successes would propel their market share, the brothers entered two vehicles in Britain's London to Brighton Veteran Car Run. Frank placed first and beat out the nearest competition by 75 minutes.

The brothers went their separate ways by the end of the century, over a dispute for financing that would have required moving the company to Detroit. Frank helped produce the Stevens-Duryea (at gun maker Stevens) until 1927, while Charles produced Duryea vehicles as late as 1917. Based in Reading, Pennsylvania, it was not uncommon for residents to see him motoring a brand-new automobile from City Park out to Mount Penn, using the switchback road as a final test of durability and refinement.

Charles Duryea moved to Reading in February 1900. By 1901, Duryea and Sternbergh incorporated the Duryea Power Company "for the manufacture of iron, steel, bath, any metal or wood or both, including automobiles, motors, propellers, and part of either." By March 1902, after overcoming difficulties procuring factory space, and a devastating flood of the Schuylkill River, Duryea was manufacturing one three-wheel, three-cylinder, gasolinepowered automobile each week. Most buyers were doctors, who enjoyed the power, reliability, and heady 20 mile-an-hour top speed of his vehicles.

By 1905, Duryea's fifty workers were manufacturing sixty cars a year, including the four-wheel Phaeton, which soon sold for \$1,600. Duryea's automobiles were a success, but a dispute among the company's partners led to collapse of the business in 1907. Undaunted, Charles Duryea designed a new automobile with significant design innovations, including a twocylinder, air-cooled engine, which he named the "Buggyaut." Manufactured

in a garage at 32 Carpenter St., the Buggyaut was an inexpensive auto with large wheels designed for rural markets and unpaved roads. To make the car affordable, Duryea introduced a simple body design, mounted on the side bars of the chassis, in usual buggy fashion, that made the Buggyaut light and easy riding. The two-passenger model, complete with a top, sold for only \$700, but the Buggyaut never achieved the success that he had envisioned. In 1914, Duryea closed the garage and left Reading.

In 1916, eight years after Henry Ford introduced his Model T, Duryea made another attempt to produce his own "car for the people." With financing from Keyser Fry of Reading, he created the Duryea GEM, a cross between an automobile and a motorcycle, with a newly designed engine and suspension. Advertised as the "Biggest Idea in the History of the Motor Car and the Last Word in Automobile Construction," the Duryea GEM combined the comfort and stability of an automobile with the simplicity, handling, and economy of a motorcycle. It was also extremely affordable, costing only \$250 and boasting an impressive 65 miles of driving per gallon of gasoline. Once again, however, lack of funding forced Duryea to drop the project, with only six being thought to have been built. The GEM was the last automobile built by Charles Duryea.

Although Charles did discuss with Frank Duryea the building of the first commercially successful American automobile, Frank was the actual builder during their collaboration. He did correspond with his brother Charles regarding what did and did not work in the design. Charles left Springfield in 1892 before construction began. This was documented in transcripts during the Selden Patent trial.

Boyertown Museum of Historic Vehicles in Boyertown, Pennsylvania hosts an annual Duryea Day Antique and Classic Car Show, which features an extensive collection of automobiles manufactured in southeastern Pennsylvania in the early 20th century. Since 1951, the SCCA has sponsored a biannual "Duryea Hillclimb" race in Reading which traces Charles' original test route.

## **Elwood Haynes - Haynes Automobile Company**

Elwood Haynes (October 14, 1857 – April 13, 1925) was an American inventor, metallurgist, automotive pioneer, entrepreneur and industrialist. He invented the metal alloy stellite and independently codiscovered martensitic stainless steel along with Englishman Harry Brearley in 1912 and designed one of the earliest automobiles made in the United States. He is recognized for having created the earliest American design that was feasible for mass production and, with the Apperson



brothers, he formed the first company in the United States to produce automobiles profitably. He made many advances in the automotive industry.

Early in his career, while serving as a field superintendent at gas and oil companies during Indiana's gas boom, Haynes invented several devices important to the advance of the natural gas industry. When working for the Indiana Natural Gas and Oil Company, he oversaw the construction of the first long-distance natural gas pipeline in the United States,

connecting Chicago with the Trenton Gas Field 150 miles (240 km) away. He began to formulate plans for a motorized vehicle in the early 1890s; he successfully road tested his first car, the Pioneer, on July 4, 1894 eight years after the first automobile was patented in Germany. He formed a partnership with Elmer and Edgar Apperson in 1896 to start Haynes-Apperson for the commercial production of automobiles. He renamed it Haynes Automobile Company in 1905, following the loss of his partners.

Working in his laboratory to develop new corrosion-resistant metals for auto parts, Haynes discovered that

mixing tungsten with chromium, steel and iron resulted in the formation of strong and lightweight alloys that were impervious to corrosion, and could endure high temperatures.

In 1912, he formed Haynes Stellite Company to produce one of the new alloys, and received lucrative contracts during World War I, making Haynes a millionaire in 1916. He sold his patent for stainless steel to the American Stainless-Steel Company in exchange for enough stock to gain a seat at the company's board of directors, a position he held for 12 years. He merged the Haynes Stellite company with Union Carbide in 1920. After passing through different owners, the company was renamed and is now called Haynes

International. Haynes returned his focus to his automotive company, but in the economic recession of the 1920s the business went bankrupt and was liquidated.

An outspoken advocate of prohibition, he made substantial donations to the Prohibition Party and Indiana's prohibitionist leader Frank Hanly. Haynes ran an unsuccessful campaign in Indiana for the U.S. Senate in 1916 as a prohibition candidate and remained active in the party until prohibition became law. Later, he became a philanthropist and served two terms as president of the YMCA, five years on the Indiana Board of Education, and was an active member of the Presbyterian church. After his death from complications arising from influenza, his Kokomo mansion was converted into the Elwood Haynes Museum and is open to the public where many of his original inventions and automobiles are on display.

According to Haynes, he began laying out "plans for the construction of a mechanically propelled vehicle for use on highways" in 1891. His first idea was for a steam-powered vehicle, but after careful consideration he decided the use of a furnace on the device would be too dangerous. His second plan was to use electrical power, but after research he found that no practical means existed to store the electricity required for operation. He continued to develop his plans until the summer of 1893 when he attended the Chicago World's Fair, where he first witnessed a gasoline engine. The demonstration of the newly invented engine inspired him to decide that an internal combustion engine would be the most practical method to propel his vehicle. A gasoline-powered European automobile built by German inventor Karl Benz (who patented the first automobile in 1886) also was on display during the fair, although it is unknown if Haynes witnessed this vehicle during his visit.

Haynes ordered a one-horsepower marine upright, two-cycle engine from Sintz Gas Engine Company in Grand Rapids, Michigan for \$225. Although the engine was intended for use on a small boat, Haynes believed it could be adapted for his purposes. The 180 lb. (82 kg) engine arrived in the fall of 1893. Haynes soon had the device attached to a carriage he built in his kitchen. He found when he started the engine that its vibrations were too severe for the harness it was in, and before he could stop the engine it had done considerable damage to the carriage and the floor of his kitchen, and filled the room with smoke.

In 1905, three years after the Apperson brothers split from Haynes, Haynes-Apperson was renamed the Haynes Automobile Company and Haynes launched a series of publicity campaigns. A parade of 2,000 cars was

organized in New York City during 1908 and Haynes, whom many recognized as the inventor of the American automobile, led the parade down Broadway riding in the Pioneer. He was followed by ten Haynes cars, a model from each year to display the advancement in technology. On his way to the parade, Haynes was unaware of the city's newly established speeding laws and was arrested for driving too fast—in a car with a top speed of 15 mph (24 km/h)—and taken to jail. He was soon able to see a magistrate who released him after learning that he was Elwood Haynes and had come to lead the parade. The celebration was intended to be a ten-year commemoration of the invention of the automobile, although earlier selfvehicles dated back nearly twenty years in Europe. Haynes donated the Pioneer to the United States Government in 1910 to be placed in the Smithsonian Institution where it is still on display in the National Museum of American History as the second oldest motorized vehicle in the United States.

Haynes' Model L was his most popular vehicle. First designed in 1905, the three-speed car could travel at 35 mph (56 km/h) and carry four passengers; the company sold over 4,300. Haynes expanded the company significantly in 1908 to accommodate ever-increasing sales. More stock was issued and more capital raised to build a new and larger factory. By 1909 the company was producing 650 cars annually with models priced between \$2,500 and \$5,500. In 1910, Haynes Auto became the first company to build a car with a roof, windshield, headlights, and a speedometer as standard on each vehicle to continue their goal of producing the best luxury vehicles.

More than 1,000 autos were built by Haynes Automobile Company in 1910 and the company continued to experience growth, until a devastating fire swept the company factory in 1911 and killed one employee. Recovery from the blaze was slow, and it was not until 1913 that the company was able to resume its growth. To continue the promotion of his cars, Haynes organized a trip in which he crossed the country by automobile in 1914. The trip gained considerable attention from the press and gave his company publicity and a much-needed sales boost in the wake of the fire. Almost every town he visited printed newspaper stories on his invention and many hailed him as the "Father of the Automobile".

## **Charles Brady King - King Motor Car Company**

Charles Brady King built his first car in Detroit in 1896. The original plan was to enter it in the November 1895 Chicago Times Herald auto race, but it was not completed in time. King finished it on March 6, 1896, and it became the first gasoline automobile to be successfully driven on the streets of

Detroit. Henry Ford reportedly followed behind on a bicycle on the maiden voyage of the King. The situation in 1896 Detroit was not nearly as pro-automobile as it would be a decade later. Discouraged, King dismantled his car and sold the chassis to Byron Carter of future Carter car fame.

King worked for various other car companies before creating another car in 1910 and establishing the King Motor Car Company in February of the following year. The new King car incorporated a number of advanced features, such as a Gray Motors engine cast en



bloc, cantilever springs, left-hand drive, and a centrally-located gearshift. Possibly its most advanced feature was its lubrication system in which the flywheel served as a form of oil pump.

The first factory was rented and located at 1559 West Jefferson, but soon outgrew the space and moved into the former Hupmobile plant at Jefferson and Concord in early 1912. Just a few months later, the firm was in receivership, possibly from over-expansion. The company was bought by chewing gum magnate Artemas Ward from New York City in 1912 for \$40,000. He put automobile executive J. G. Bayerline in the president position. Two years later there was a disagreement between the two men and Ward replaced Bayerline in the presidency of the company.

In December 1914, a V8 engine was introduced in the King, a scant two months after Cadillac announced its own V8-powered car. Starting in 1916, all Kings were 8-cylinder models. Production declined from a peak of 3,000 in 1916 to a company low of 240 in 1923. During the healthier years, the company exported cars to Europe, Australia, South America, South Africa, and Russia. Early 4-cylinder cars were medium-priced at \$1,350 in basic form, and for \$1,565 when fully equipped with windshield, hood, and gas lamps. By 1914, even the V8-powered car was only \$1,350, and was

advertised as the "World's First Popular-Priced V8". By 1923, prices were \$1,795-\$2,550.

In the fall of 1920, with the Depression of 1920–1921, Artemas Ward and other company directors petitioned to have the company dissolved, citing not enough working capital and a failure to secure loans from banks. The auto press said it was due to inefficient management. Early the next year, Charles A. Finnegan of Buffalo bought the company for \$500,000 and assumed company debts of approximately double that. The debt was paid off by late 1922 and the receivership was terminated. In October 1923, the firm moved to a much smaller Buffalo factory, but was bankrupt and finished by early 1924. While in bankruptcy hearings, remaining bodies and parts were shipped to England. There, 100 additional Kings were assembled in 1925.

### John and Horace Dodge - Dodge Brothers Company

Horace Elgin Dodge Sr. (May 17, 1868 – December 10, 1920) and John Francis Dodge (October 25, 1864 – January 14, 1920) were both American automobile manufacturing pioneers and co-founders of Dodge Brothers Company.

John Dodge was born in Niles, Michigan, where his father ran a foundry and machine shop. John and his younger brother, Horace, were inseparable as children and as adults. The origins of the Dodge family were earlier thought to lie in Stockport, England, where a Dodge ancestral home still stands (Halliday Hill Farmhouse in Listed buildings in Stockport), however recent DNA testing conducted by the Dodge Family Association has shown that many of the USA Dodges are in fact descended from Dodges who emigrated from East Coker, Somerset. Horace Dodge was also born in Niles, Michigan. The pair was noted for personal initiative and once built a working high-wheel bicycle from scrap materials.

In 1886, the Dodge family moved to Detroit, where John and Horace took jobs at a boiler maker plant. In 1894 they went to work as machinists at the Dominion Typograph Company in Windsor, Ontario, Canada. While John was the



sales-minded managerial type, his brother Horace was a gifted mechanic and inveterate tinkerer. Using a dirt-proof ball bearing Horace invented and patented, in 1897 Dodge arranged a deal for the brothers to join with a third-party investor to manufacture bicycles. Within a few years, they sold the bicycle business and in 1900 used the proceeds of the sale to set up their own machine shop in Detroit.

In their first year of business, the Dodge brothers' company began making parts for the automobile industry. In 1902 the Dodge brothers won a contract to build transmissions for the Olds Motor Vehicle Company upon which they built a solid reputation for quality and service. However, the following year they turned down a second contract from Olds to retool their

Detroit plant at Hastings Street and Monroe Avenue to build engines for Henry Ford in a deal that included a share position in the new Ford Motor Company. By 1910, John Dodge and his brother were so successful they built a new plant in Hamtramck, Michigan.

For ten years (1903–1913), the Dodge brothers' business was a Ford Motor Company supplier, and Dodge worked as vice president of the Ford company. He left Ford in 1913, and in 1914 he and Horace formed Dodge Brothers to develop their own line of automobiles. They began building motor trucks for the United States military during the arms buildup for World War I, and in October 1917 they produced their first commercial car. At war's end, their company produced and marketed both cars and trucks.

He was inducted into the Automotive Hall of Fame in 1997.

Because of his temper and often crude behavior, the red-haired <sup>[4]</sup> Dodge was seen as socially unacceptable to most of the well-heeled elite of Detroit. Nevertheless, his wealth made him an influential member of the community and he became active in Republican Party politics in Michigan.

## Walter Chrysler - Chrysler Corporation

Walter Percy Chrysler (April 2, 1875 – August 18, 1940) was an American industrial pioneer in the automotive industry, American automotive industry executive and the founder and namesake of American Chrysler Corporation.

Chrysler was born in Wamego, Kansas, the son of Anna Maria Chrysler (née Breymann) and Henry Chrysler. He grew up in Ellis, Kansas, where today his boyhood home is a museum. His father was born in Chatham, Ontario, in 1850 and immigrated to the United States after 1858. A Freemason, Chrysler began his career as a machinist and railroad mechanic in Ellis. He took correspondence courses from International



Correspondence Schools in Scranton, Pennsylvania, earning a mechanical degree from the correspondence program.

Walter Chrysler's father, Henry (Hank) Chrysler, was a Canadian, of German, English and Dutch ancestry. He was an American Civil War veteran who was a locomotive engineer for the Kansas Pacific Railway and its successor, the Union Pacific Railroad. Walter's mother was born in Rocheport, Missouri, and was also of German ancestry. Walter Chrysler was not especially interested in his remote ancestors; his collaborative author Boyden Sparkes says that one genealogical researcher reported "that he had a seagoing Dutchman among his forebears; one Captain Jan Gerritsen Van Dalsen", but that "as to that, Walter Chrysler made it plain to me he was in accord with Jimmy Durante: 'Ancestors? I got millions of 'em!'." However, he thought enough of genealogy to include in his autobiography that his father, Hank Chrysler, "Canadian born, had been brought from Chatham, Ontario, to Kansas City when he was only five or six. His forebears had founded Chatham; the family stock was German; eight generations back of me there had come to America one who spelled his name Greisler, a German Palatine. He was one of a group of Protestants who had left their German homeland in the Rhine Valley, gone to the Netherlands, thence to England and embarked, finally, from Plymouth for New York."

Other researchers have since traced his ancestors in more detail. Karin Holl's monograph on the subject traces the family tree to a Johann Philipp Kreißler, born in 1672, who left Germany for Canada in 1709. Chrysler's

ancestors came from the Rhineland-Palatinate town of Guntersblum. His family belongs to Old Stock Americans.

Chrysler apprenticed in the railroad shops at Ellis as a machinist and railroad mechanic. He then spent a period of years roaming the west, working for various railroads as a roundhouse mechanic with a reputation of being good at valve-setting jobs. Chrysler moved frequently, first to Wellington, Kansas, in 1897, then to Denver, Colorado for two weeks, and finally Cheyenne, Wyoming. Some of his moves were due to restlessness and a quick temper, but his roaming was also a way to become more well-rounded in his railroad knowledge. He worked his way up through positions such as foreman in Trinidad, Colorado, superintendent, division master mechanic, and general master mechanic.

From 1905 to 1906, Chrysler worked for the Fort Worth and Denver Railway in Childress in West Texas. He later lived and worked in Oelwein, Iowa, at the main shops of the Chicago Great Western where there is a small park dedicated to him.

The pinnacle of his railroading career came at Pittsburgh, Pennsylvania, where he became works manager of the Allegheny locomotive erecting shops of the American Locomotive Company (Alco). While working in Pittsburgh, Chrysler lived in the town of Bellevue the first town outside of Pittsburgh on the north side of the Ohio River.

Chrysler's automotive career began in 1911 when he received a summons to meet with James J. Storrow, a banker who was a director of Alco. Storrow asked him if he had given any thought to automobile manufacture. Chrysler had been an auto enthusiast for over five years by then, and was very interested. Storrow arranged a meeting with Charles W. Nash, then president of the Buick Motor Company, who was looking for a smart production chief. Chrysler, who had resigned from many railroading jobs over the years, made his final resignation from railroading to become works manager (in charge of production) at Buick in Flint, Michigan. He found many ways to reduce the costs of production, such as putting an end to finishing automobile undercarriages with the same luxurious quality of finish that the body warranted.

In 1916, William C. Durant, who founded General Motors in 1908, had retaken GM from bankers who had taken over the company. Chrysler, who was closely tied to the bankers, submitted his resignation to Durant, then based in New York City.

Durant took the first train to Flint to make an attempt to keep Chrysler at the helm of Buick. Durant made the then-unheard-of salary offer of \$10,000 (equivalent to \$280,000 in 2023) a month for three years, with a \$500,000 (equivalent to \$14 million in 2023) bonus at the end of each year, or \$500,000 (equivalent to \$14 million in 2023) in stock. Additionally, Chrysler would report directly to Durant, and would have full run of Buick without interference from anyone. Apparently in shock, Chrysler asked Durant to repeat the offer, which he did. Chrysler immediately accepted.

Chrysler ran Buick successfully for three more years. Not long after his three-year contract was up, he resigned from his job as president of Buick in 1919. He did not agree with Durant's vision for the future of General Motors. Durant paid Chrysler \$10 million (equivalent to \$176 million in 2023) for his GM stock. Chrysler had started at Buick in 1911 for \$6,000 a year (equivalent to \$196,200 in 2023), and left one of the richest men in the United States. GM replaced Chrysler with Harry H. Bassett a protege who had risen through the ranks at the Weston-Mott axle manufacturing company, by then a subsidiary of Buick.

Chrysler was then hired to attempt a turnaround by bankers who foresaw the loss of their investment in Willys-Overland Motor Company in Toledo, Ohio. He demanded and received a salary of \$1 million (equivalent to \$17.6 million in 2023) a year for two years, an astonishing amount at that time. When Chrysler left Willys in 1921 after an unsuccessful attempt to wrestle control from John Willys, he acquired a controlling interest in the ailing Maxwell Motor Company. Chrysler phased out Maxwell and absorbed it into his new firm, the Chrysler Corporation, in Detroit, Michigan, in 1925. In addition to his namesake car

company, Plymouth and DeSoto marques were created, and in 1928 Chrysler purchased Dodge Brothers and renamed it Dodge. The same year he financed the construction of the Chrysler Building in New York City, which was completed in 1930. Chrysler was named Time magazine's Man of the Year for 1928.

He was inducted into the Automotive Hall of Fame in 1967.

### Revision May 20, 2025 rev U John Willys - Willys-Overland Motor Company

John North Willys (October 25, 1873 – August 26, 1935) was an American automotive pioneer and diplomat. His company, Willys-Overland Motors, became the second largest carmaker in the United States after Henry Ford.

Born in Canandaigua, New York, Willys began selling bicycles in his hometown and within a few years, expanded into manufacturing his own line of bicycles.

Willys' interest in cars came after an 1899 trip to Cleveland, where he saw an automobile for the first time, and knew they would quickly replace bicycles. Willys returned to New York and opened his first car dealership in Elmira, New York, selling Overland Automobile brand automobiles. After changing the



name to the Willys-Overland Motor Company in 1912, the next year John Willys acquired the Edwards Motor Co of New York which gave him a license to manufacture the patented Knight "sleeve valve" engine. Success saw his car company become the second largest carmaker in the United States and in 1915 he built a seven-story headquarters in Toledo, Ohio, that was the most modern of its day. Before the end of the decade, one-third of the city of Toledo's workforce was employed either at Willys-Overland or at one of the numerous small businesses providing parts and supplies. His automobile empire offered the consumer the choice of an Overland, Willys or Willys-Knight vehicle, each relative to a specific type of engine or price range. Through his holding company, in 1918 John Willys acquired the Moline Plow Company of Moline, Illinois, which manufactured the "Universal" brand of farm tractor and a line of Stephens cars. The following year he acquired control of the Duesenberg company primarily to get his hands on Duesenberg brothers' factory in Elizabeth, New Jersey where he planned to produce a new six-cylinder car.

Labor difficulties began to emerge at the Willys-Overland Toledo plant that resulted in a violent strike in 1919, shutting down the plant for several

months. Willys hired General Motors vice-president Walter Chrysler to run the Willys-Overland operation at the then astonishing salary of \$1 million a year. However, Chrysler tried to oust John Willys with an attempted takeover bid that backfired when the shareholders resisted his move and Chrysler left in 1921 to go into business for himself.

Although very profitable, Willys' businesses were highly leveraged, expanded and/or acquired through massive borrowings. In 1921, Willys' nervous bankers forced him to consolidate in order to limit their exposure. To raise cash for debt reduction, the Willys-Overland plant in New Jersey was sold at auction to William C. Durant as was Willys' "New Process Gear Company," in Syracuse, New York. With debt under control, Willys once again began expanding and in 1925 bought the F.J. Stearns Co. of Cleveland, Ohio that made a line of luxury vehicles. In 1926 Willys introduced the "Whippet" model line that sold in the U.S., Canada, and <u>Australia</u>.

The Great Depression of the 1930s saw numerous carmakers go out of business, and the Willys enterprises went into bankruptcy reorganization in 1933.

In 2008, Willys was posthumously inducted into the Automotive Hall of Fame in Dearborn, Michigan.

Well respected in the business community, John Willys was a strong supporter of the United States Republican Party who had been an Ohio delegate to the 1916 Republican National Convention. Following the election of Herbert Hoover to the Presidency of the United States, in March 1930 Willys was appointed the first United States Ambassador to Poland, serving until May 1932.

Willys and his wife had at least one daughter, Virginia, who married a rancher, Luis Marcelino de Aguirre, in 1929 when she was 18.

The following year, John Willys and his wife of thirty-seven years divorced. He soon remarried.

He died on August 26, 1935, of a stroke after recovering completely from a previous heart attack that he had in May, at his home in The Bronx, New York City. He was interred in the Kensico Cemetery in Valhalla, New York.

# Harry Stutz - Stutz Motor Company

Harry Clayton Stutz (September 12, 1876 – June 26, 1930) was an American automobile manufacturer, entrepreneur, self-taught engineer, and innovator in the automobile industry. Stutz was part of the burgeoning Indianapolis automotive industry of the early 20th century, where he founded the Ideal Motor Car Company, later known as the Stutz Motor Car Company, and the short-lived H. C. S. Motor Car Company.

Harry Stutz was born On September 12, 1876, near Ansonia, Ohio, to farmer Henry J. Stutz and his wife Elizabeth (née Schneider). Upon finishing his schooling, Stutz moved to Dayton, Ohio. He worked



for the Davis Sewing Machine Company and National Cash Register before he opened a machine shop and repair business in 1897.

Stutz grew up caring for and repairing agricultural machinery on the family farm and was fascinated by automobiles. Stutz built his first car in 1897, and in 1900 he built a second automobile using a gasoline engine of his own design and manufacture. In 1899, Stutz established the Stutz Manufacturing Company in Dayton to produce engines. In 1902, the Lindsay Automobile Parts Company of Indianapolis sought to use his engines at their Indianapolis manufacturing facility. The two companies merged that year, bringing Stutz to Indianapolis.

Upon arrival in Indianapolis, Stutz continued to work within the newlyfounded automotive industry. With two other investors he established Central Motor Car Company but moved on to the Schebler Carburetor Company at the end of 1904 to sell their carburetors.

In 1905, Stutz designed a car for the American Motor Car Company. In 1907, Stutz became the chief engineer and factory manager at the Marion Motor Car Company. At Marion, he became one of the company's racing drivers competing in local Indianapolis races.

Stutz formed the Stutz Auto Parts Company in 1910 to manufacture his newly patented transaxle design. Stutz came to the attention of the founders of the Indianapolis Motor Speedway, who had formed the Empire Motor Car Company in 1909. Stutz was brought on as the designer of the group's first automobile, the Empire.

Building upon his success with the Empire, Stutz sought to enter a car in the upcoming Indianapolis 500-mile race. In a five-week period, Stutz designed and built his own car and entered it in the race. This car was named the Bear Cat, a prototype of what later became the Stutz Bearcat. Stutz's car was driven by Gil Andersen with mechanic Frank Agan and placed 11th in the inaugural Indianapolis 500-mile Race. The Bear Cat suffered no mechanical defects, with Andersen and Agan only stopping for tires and fuel. Stutz immediately set about putting his Bear Cat into production, with the slogan "the car that made good in a day."

Stutz, with financial backing from Henry F. Campbell, founded the Ideal Motor Car Company in June 1911 to begin production of their new automobile. The Ideal Motor Car Company opened a factory on the northwest side of downtown Indianapolis. In 1913, Stutz merged Ideal with the Stutz Auto Parts Company to create the Stutz Motor Car Company.

In the first four years of production Stutz sold over 3,000 vehicles and expanded its operations. By 1920, the manufacturing factory encompassed an entire city block to find more capital for his prospering business, Stutz fell in with a New York stockbroker, Allan A. Ryan. In 1916, Stutz Motor Car Company of America was listed on the New York Stock Exchange. Ryan now controlled the business, with Stutz staying on as president. Uncomfortable with Ryan's business style, Harry Stutz resigned from the Stutz Motor Car Company in 1919. Ryan lost his controlling interest and was forced to sell the company to an investment group that included Charles M. Schwab. The company remained solvent throughout the 1920s, but various lawsuits and contract disputes, coupled with the weakened automobile market from the Great Depression, caused the company to fold by the end of the 1930s.

Shortly after leaving the Stutz Motor Car Company, Harry Stutz re-entered the automotive industry by founding the H. C. S. Motor Car Company. Stutz reenlisted the help of Henry Campbell, and was able to raise \$1,000,000 in capital by late 1919. H. C. S. focused on sportscars and roadsters, and by 1920 had vehicles available for dealers. The first H. C. S. vehicle, named the H. C. S. Special, was advertised beginning in February 1920, with Stutz's cousin, Charles E. Stutz, listed as the sole Indiana distributor.

In 1924, Stutz expanded the H. C. S. business, introducing the new H. C. S. taxicab. Stutz sought to corner the market on wholesale buying of taxis as their demand grew in the 1920s. The H. C. S. Motor Car Company was purchased by the newly-formed H. C. S. Cab Manufacturing Company. Stutz and Campbell continued to run the operation from their North Capitol Avenue manufacturing plant, manufacturing both taxicabs and

automobiles. The H. C. S. taxicabs were met with positive reception and Stutz showcased the newly-designed vehicles in New York City.

In 1926, Stutz closed H. C. S. Motor Car Company and moved to Florida.

Stutz began manufacturing fire engines with the Stutz Fire Engine Company in 1920. The Stutz Fire Engine Company ran concurrently with the H. C. S. Motor Car Company, occupying two buildings in the same complex on North Capitol Avenue in Indianapolis. Stutz sold the fire engines to several fire departments in Indiana and the coasts as municipal firefighting services began to switch to motorized vehicles in the 1920s. Stutz sold his interest in the fire engine company in 1926.

In 1929, Stutz designed a four-cylinder engine for the Stutz-Bellanca Airplane Company.

In 1898, Stutz married Clara Marie Dietz (1880-1956). Clara and Harry had one daughter, Emma (1901-1992). Harry and Clara followed Indiana automotive pioneer Carl G. Fisher by moving to Florida, where they settled in Miami. They maintained a residence in Indianapolis, a sprawling 10bedroom mansion at 3172 North Meridian Street (now 3190 North Meridian Street). Harry and Clara divorced in 1925.

Stutz re-married to Blanche Clark Miller in 1926, and they subsequently moved to Orlando, Florida. Their marriage was the subject of national news, as Blanche's former husband sued Stutz for "alienation of affection," seeking \$50,000 in damages.

Stutz was an active member of Indianapolis society. He belonged to the Indianapolis Athletic Club, and was elected its vice-president in 1920 and again in 1925.

Stutz suffered an inflamed appendix during a June 1930 car trip from Orlando to Indianapolis. Upon arrival in Indianapolis, Stutz was admitted to Methodist Hospital where he underwent surgery to remove his appendix. The surgery was initially reported as successful, and Stutz was listed in fair condition. Despite the initial report, Stutz died the following day, June 26, 1930. Stutz is buried at Crown Hill Cemetery in Indianapolis.

Stutz was inducted into the Automotive Hall of Fame in 1993.

# John DeLorean - DMC

John Zachary DeLorean (January 6, 1925 – March 19, 2005) was an American engineer, inventor, and executive in the U.S. automobile industry. He is widely known as founder of the DeLorean Motor Company, as well as for his work at General Motors.

DeLorean managed the development of several vehicles throughout his career, including the Pontiac GTO, Pontiac Firebird, Pontiac Grand Prix, Chevrolet Cosworth Vega, and DMC DeLorean, which was featured in the 1985 film *Back to the Future*. He was the youngest division chief in General Motors history, then left to start the



DeLorean Motor Company (DMC) in 1973. Production delays meant that DMC's first car did not reach the consumer market until 1981, when a depressed buying market was compounded by lukewarm reviews from critics and the public. After a year, the DeLorean had failed to recover its \$175 million investment costs, unsold cars accumulated, and the company was in financial trouble.

In October 1982, DeLorean was charged with cocaine trafficking after FBI informant James Hoffman solicited him as financier in a scheme to sell 220 lb. (100 kg) of cocaine worth approximately \$24 million. DMC was insolvent at the time and \$17 million in debt. Hoffman had approached DeLorean, a man whom he barely knew with no prior criminal record, and DeLorean was able to successfully defend himself at trial under the procedural defense of police entrapment. The trial ended in a not guilty verdict in August 1984, by which time DMC had filed for bankruptcy and ceased operations.

# **Early life**

DeLorean was born in Detroit, Michigan, the eldest of four sons of Zachary and Kathryn DeLorean. His father, a mill worker, was Romanian, born Zaharia Delorean and emigrated to the United States when he was 20. He spent time in Montana and Gary, Indiana, before moving to Michigan. By the time John was born, Zachary had found employment as a union organizer at the Ford Motor Company factory in nearby Highland Park. His poor English skills and lack of education prevented him from higher-paid work. When not required at Ford, he occasionally worked as a carpenter.

DeLorean's mother was a Hungarian citizen of Hungarian origin. She was employed at the Carboloy Products Division of General Electric throughout much of DeLorean's early life. She took work wherever she could to supplement the family's income. She generally tolerated Zachary's intermittent episodes of erratic behavior; but during several of his more violent periods, she took her sons to live with her sister in Los Angeles, California, where they stayed for a year or so at a time. DeLorean's parents divorced in 1942. John subsequently saw little of his father, who moved into a boarding house and became a solitary and estranged drug addict.

### Career

DeLorean was at Chrysler for less than a year. In 1953, he was offered a salary of \$14,000 (equivalent to US \$159,433 in 2023) at Packard Motor Company under the supervision of engineer Forest McFarland. DeLorean quickly gained his new employer's attention with an improvement to the Ultramatic automatic transmission, giving it an improved torque converter and dual-drive ranges; it was relaunched as the Twin-Ultramatic.

When DeLorean joined Packard, it was experiencing financial difficulties because of the changing postwar automotive market. While Ford, General Motors, and Chrysler had begun producing affordable mainstream products designed to cater to the rising postwar middle class, Packard had retained its prewar notions of high-end, precisely engineered luxury cars. This had a positive effect on DeLorean's attention to engineering detail, and after four years at Packard he became McFarland's successor as head of research and development.

While still profitable, Packard suffered alongside other independents as it struggled to compete when Ford and General Motors engaged in a price war. James Nance, Packard's president, decided to merge the company with Studebaker Corporation in 1954. DeLorean was considering keeping his job and moving to Studebaker headquarters in South Bend, Indiana, when he received a call from Oliver K. Kelley, vice president of engineering at General Motors, whom DeLorean greatly admired. Kelley offered DeLorean his choice of a job in any of GM's five divisions.

### **General Motors - Pontiac**

In 1956, DeLorean accepted a salary offer of \$16,000 (equivalent to US \$179,310 in 2023) with a bonus program, choosing to work at GM's Pontiac division as an assistant to chief engineer Pete Estes and general manager Semon "Bunkie" Knudsen. Knudsen was the son of the former president of GM, William Knudsen, who had been called away from

his post to head the war mobilization production effort at the request of President Franklin D. Roosevelt. Knudsen was an MIT engineering graduate and at 42 was the youngest man to head a GM division. DeLorean and Knudsen quickly became close friends; DeLorean later cited him as a major influence and mentor. DeLorean produced dozens of patented innovations for the company and in 1961 was promoted to division chief engineer.

DeLorean became widely known at Pontiac for the Pontiac GTO; a muscle car named after the Ferrari 250 GTO. The Pontiac brand reached third place in annual industry sales in the United States. To highlight the brand's performance emphasis, the GTO debuted as a Tempest/LeMans option package with a larger and more powerful engine in 1964. This marked the beginning of Pontiac's renaissance as GM's performance division instead of its previous position with no clear brand identity. The car and its popularity continued to grow in the following years. DeLorean received almost total credit for its success its conception, engineering, and marketing and was rewarded with a 1965 promotion to head of the Pontiac division.

At 40, DeLorean had broken the record for youngest division head at GM and was determined to continue his string of successes. Adapting to the frustrations he perceived in the executive offices was a difficult transition for him. He believed there was an undue amount of conflict between GM's division heads. Several of Pontiac's advertising campaign themes met with internal resistance, such as the "Tiger" campaign used to promote the GTO and other Pontiac models in 1965 and 1966. In addition, there was Ed Cole's decision to ban multiple carburetors, a method of enhancing engine performance used by Pontiac that had begun with two 4-barrel carburetors and Tri-Power three 2-barrel carburetors in 1957.

In response to the "pony car" market dominated by the Ford Mustang, DeLorean asked GM executives for permission to market a smaller version of the Pontiac Banshee show car for 1966. However, his idea was rejected because of GM's concern that it would divert sales from the Corvette, their flagship performance car. Their focus was on the new Chevrolet Camaro design. Pontiac developed its version, and the Firebird was introduced for the 1967 model year.

Shortly after the Firebird's introduction, DeLorean turned his attention to the development of an all-new Grand Prix, the division's personal luxury car based on the full-sized Pontiac line. Sales were lagging by this time, but the 1969 model would have its own distinct body shell with drivetrain and chassis components from the intermediate-sized Pontiac A-body (Tempest, LeMans, GTO). DeLorean knew the Pontiac division could not finance the

new car alone, so he went to his former boss Pete Estes and asked him to share the cost of development with Pontiac, having a one-year exclusivity before Chevrolet released the 1970 Monte Carlo. The deal was done. The 1969 Pontiac Grand Prix featured sharp bodylines and a 6-foot-long (1.8 m) hood. The interior included a wraparound cockpit-style instrument panel, bucket seats and a center console. The new model offered a sportier, high performance, somewhat smaller, and lower-priced alternative to other personal luxury cars on the market, such as the Ford Thunderbird, Buick Riviera, Lincoln Continental Mark III, and Oldsmobile Toronado. The 1969 Grand Prix production ended up at over 112,000 units, far higher than the 32,000 1968 Grand Prix units built from the full-sized Pontiac body.

During his time at Pontiac, DeLorean had begun to enjoy the freedom and celebrity that came with his position, and he spent a good deal of his time traveling to locations around the world to support promotional events. His frequent public appearances helped to solidify his image as a "rebel" corporate businessman, with his trendy dress style and casual banter.

Even as General Motors experienced revenue declines, Pontiac remained highly profitable under DeLorean, and despite his growing reputation as a corporate maverick, on February 15, 1969, he was again promoted. This time it was to head up the prestigious Chevrolet division, General Motors' flagship marque.

### Chevrolet

By this time, DeLorean earned an annual salary of \$200,000 (equivalent to US \$1,661,706 in 2023), with yearly bonuses of up to \$400,000 (equivalent to US \$3,323,412 in 2023). He was ubiquitous in popular culture. At a time when business executives were typically conservative, low-key individuals in three-piece suits, DeLorean wore long sideburns and unbuttoned shirts. He invited Ford president Lee Iacocca to serve as best man at his second wedding.

DeLorean was a limited partner in a pair of American professional sports franchises. The first was the San Diego Chargers, as part of a syndicate led by Gene Klein and Sam Schulman that bought a controlling interest for \$10 million in August 1966. The other was the New York Yankees of which he was one of fifteen investors led by George Steinbrenner and Michael Burke who completed the purchase from CBS for \$10 million on January 3, 1973.

DeLorean continued his jet-setting lifestyle and was often seen hanging out in business and entertainment celebrity circles. He became friends
with James T. Aubrey, president of Metro-Goldwyn-Mayer Studios, and was introduced to celebrities such as financier Kirk Kerkorian, Chris-Craft chairman Herb Siegel, entertainer Sammy Davis Jr., and *The Tonight Show* host Johnny Carson.

The executive offices of General Motors headquarters continued to clash with DeLorean's nonconformity. When he was appointed, Chevrolet was having financial and organizational troubles, and GM president Ed Cole needed a manager in that position to sort things out. The new model Camaro was due out for the 1970 model year, and it was rapidly falling behind schedule. Redesigns for the Corvette and Nova were also delayed, and unit sales had still not recovered from the past four years of turmoil, much of that because of the bad publicity surrounding the Corvair and wellpublicized quality-control issues affecting other Chevy models, including defective motor mounts that led to an unprecedented recall of 6.7 million Chevrolets built between 1965 and 1969. DeLorean responded to the production problems by delaying the release of the Camaro and simplifying the modifications to the Corvette and Nova. He used the extra time to streamline Chevrolet's production overhead and reduce assembly costs. By 1971, Chevrolet was experiencing record sales in excess of 3 million vehicles, and his division alone was nearly matching that of the entire Ford Motor Company.

The Vega was assigned to Chevrolet by corporate management, specifically by Cole, just weeks before DeLorean's 1969 arrival as the Chevrolet division's general manager. In a *Motor Trend* interview in August 1970, DeLorean said, "Vega will be the highest quality product ever built by Chevrolet." By DeLorean's orders, dozens of extra inspectors were assigned to the Vega assembly line, and the first 2,000 cars were road-tested. He stated, "the first cars, from a manufacturing standpoint, were well built." But in 1972, General Motors Assembly Division took over the Chevrolet Lordstown assembly plant and the adjoining Fisher Body plant. Their main goal was to cut costs, and more than 800 workers were laid off, many of whom were the additional inspectors. This led to assembly-line vandalism, with workers intentionally slowing the line, leaving off parts and installing others improperly. Incomplete and often non-functioning cars soon filled the factory lot, which then had to be reprocessed and repaired by a team assigned to this task by DeLorean. A one-month strike followed, and dealers did not receive enough cars for the demand in 1972. DeLorean regrouped for the 1973 model year with Vega sales of 395,792. The onemillionth Vega was built in May 1973.

In 1972, DeLorean was appointed to the position of vice president of car and truck production for the entire General Motors line, and his eventual rise to president seemed inevitable. However, the idea of him assuming that position was almost intolerable to GM executives, and on April 2, 1973, he announced that he was leaving the company, telling the press, "I want to do things in the social area. I have to do them, and unfortunately the nature of our business just didn't permit me to do as much as I wanted." However, it had been rumored that he had been fired. GM gave him a Florida Cadillac franchise as a retirement gift, and DeLorean took over the presidency of The National Alliance of Businessmen, a charitable organization with the mission of employing Americans in need, founded by Lyndon Johnson and Henry Ford II.

DeLorean was sharply critical of the direction GM had taken by the start of the 1970s, as well as objecting to the idea of using rebates to sell cars:

"There's no forward response at General Motors to what the public wants today. A car should make people's eyes light up when they step into the showroom. Rebates are merely a way of convincing customers to buy bland cars they're not interested in."

After DeLorean left General Motors, Patrick Wright, author and former *Business Week* reporter, approached him with the idea of writing a book based on his experiences there. DeLorean agreed to dictate his recollections for Wright, who wrote the book. The final product, published in 1979, *On a Clear Day You Can See General Motors*, sold approximately 1.6 million copies, but disagreements over the content led to a conflict between the collaborators, with Wright eventually publishing the book on his own.

### **DeLorean Motor Company**

DeLorean left General Motors in 1973 to form his own company, the DeLorean Motor Company. A two-seat sports car prototype was shown in the mid-1970s called the DeLorean Safety Vehicle (DSV), with its bodyshell designed by Italdesign's Giorgetto Giugiaro. The car entered into production as the DeLorean. The car's body distinctively used stainless steel and featured gull-wing doors. It was powered by the "Douvrin" V6 engine developed by Peugeot, Renault, and Volvo (known as the PRV).

The manufacturing plant to build the new car was built in Dunmurry, a suburb of Belfast in Northern Ireland, with substantial financial incentives from the Northern Ireland Development Agency of around £100 million. Renault was contracted to build the factory, which employed over 2,000 workers at its peak production. The engine was made by Renault,

while Lotus designed the chassis and bodywork details. The Dunmurry factory eventually turned out around 9,000 cars in 1980, an American Express catalog featured an ad for a DeLorean plated in 24-karat gold. According to the ad, only 100 were going to be manufactured and sold for \$85,000. In total, only four were actually purchased.

Production delays meant the DeLorean did not reach the consumer market until January 1981 (nearly a decade after the company was founded), and in the interim, the new car market had slumped considerably during the 1980 US economic recession. This was compounded by unexpectedly lukewarm reviews from critics and the public, who generally felt the uniqueness of the DeLorean's styling did not compensate for the higher price and lower horsepower relative to other sport coupes on the market. While interest in the DeLorean quickly dwindled, competing models with lower price tags and more powerful engines (such as the Chevrolet Corvette) sold in record numbers during 1980–81 in spite of the ongoing recession. By February 1982, more than half of the roughly 7,000 DeLoreans produced remained unsold, DMC was \$175 million in debt, and the Dunmurry factory was placed in receivership.

In January 1982, the British government discovered that DeLorean had built just 8,500 cars and that the equivalent of 23 million pounds, almost half the funds received in 1974, had been transferred to a Panamanian account under the name of General Product Development Services, the company intended to subsidize Lotus. But the money never made it to Colin Chapman's Lotus, which had collaborated in the development of the car; Chapman died at the start of the investigation into the missing money. After going into receivership in February 1982, DMC produced another 2,000 cars until John DeLorean's arrest in late October, at which point liquidation proceedings were undertaken, and the factory was seized by the British government.

## Arrest and trial

On October 19, 1982, DeLorean was charged by the US government with trafficking cocaine following a videotaped sting operation in which he was recorded by undercover federal agents agreeing to bankroll a cocaine smuggling operation. The FBI set him up with more than 59 lb. (27 kg) of cocaine (worth about \$6.5 million) in a hotel near Los Angeles International Airport after arriving from New York, with the FBI stating DeLorean was the "financier" to help the financially declining company in a scheme to sell 220 lb. (100 kg), with an estimated value of \$24 million.

The government was tipped off to DeLorean by confidential informant James Timothy Hoffman, a former neighbor, who reported to his FBI superiors that DeLorean had approached him to ask about setting up a cocaine deal; in truth, Hoffman had called DeLorean and suggested the deal (which DeLorean then accepted) as part of Hoffman's efforts to receive a reduced sentence for a 1981 federal cocaine trafficking charge on which he was awaiting trial. Hoffman (whose name was redacted on the original indictment) also stated that he was aware of DeLorean's financial troubles before he contacted him, and had heard him admit that he needed \$17 million "in a hurry" to prevent DMC's imminent insolvency.

Taken together, these two elements allowed DeLorean to successfully defend himself at trial with the procedural defense of police <u>entrapment</u>. DeLorean's lawyers successfully argued that the FBI and DEA had unfairly targeted and illegally entrapped DeLorean<sup>[39]</sup> when they allowed Hoffman (an active FBI informant who only knew DeLorean casually) to solicit DeLorean into a criminal conspiracy simply because he was known to be financially vulnerable.

Another factor was DeLorean's lack of criminal history, whereas Hoffman was a career criminal who stood to directly benefit if he was able to convince DeLorean to incriminate himself on tape. The DeLorean defense team called one witness, Carol Winkler, DeLorean's secretary. Her call log proved that Hoffman made the initial call. DeLorean was found not guilty on August 16, 1984, but by then DMC had already collapsed into bankruptcy and DeLorean's reputation as a businessman was irrevocably tarnished. When asked after his acquittal if he planned to resume his career in the auto industry, DeLorean bitterly quipped, "Would you buy a used car from me?"

On September 21, 1985, DeLorean was indicted on charges he defrauded investors and committed tax evasion by diverting millions of dollars raised for the company to himself. He was acquitted of all charges.

### Later enterprises

On November 1, 1994, DeLorean filed U.S. patent 5,359,941 with the US Patent and Trademark Office for a raised monorail transport. The transport was never built. DeLorean had planned to resurrect his car company and gave interviews describing a new vehicle called the DMC2. According to his family, he spent a lot of time in his last years working on this new venture. In an effort to gather funds, he designed and sold high-end watches via the Internet under the name DeLorean Time. The DeLorean Motor Company name was subsequently purchased by a Texas-based firm that provides parts and professional restoration to DeLorean owners. Although John DeLorean was not involved in the business, its vice president James Espey spoke with him on the phone once a month. According to Espey, in their final conversation, DeLorean expressed his dismay at the direction of General Motors, saying "They have too many bean counters and not enough engineers."

## Death

DeLorean died at Overlook Hospital in Summit, New Jersey, from a stroke, on March 19, 2005, at age 80. His ashes are interred at the White Chapel Cemetery, in Troy, Michigan. His tombstone shows a depiction of his DeLorean sports car with the gull-wing doors open.

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# Elon Musk - Tesla

Elon Reeve Musk was born on June 28, 1971, in Pretoria, South Africa's administrative capital. He is of British and Pennsylvania Dutch ancestry.

His mother, Maye (<u>née</u> Haldeman), is a model and dietitian born in Saskatchewan, Canada, and raised in South Africa. His father, Errol Musk, is a South African electromechanical engineer, pilot, sailor, consultant, emerald dealer, and property developer, who partly owned a rental lodge at the Timbavati Private Nature Reserve. Elon has a younger brother, Kimbal, and a younger sister, Tosca. Elon has four paternal half-siblings.



The family was wealthy during Elon's youth. Despite both Musk and Errol previously stating that Errol was a part owner of a Zambian emerald mine, in 2023, Errol recounted that the deal he made was to receive "a portion of the emeralds produced at three small mines." Errol was elected to the Pretoria City Council as a representative of the antiapartheid Progressive Party and has said that his children shared their father's dislike of apartheid.

Elon's maternal grandfather, Joshua N. Haldeman, was an American-born Canadian who took his family on record-breaking journeys to Africa and Australia in a single-engine Bellanca airplane; Haldeman died when Elon was still a toddler.

Elon has recounted trips to a wilderness school ("veldskool") that he described as a "paramilitary Lord of the Flies" where "bullying was a virtue" and children were encouraged to fight over rations.

After his parents divorced in 1980, Elon chose to live primarily with his father. Elon later regretted his decision and became estranged from his father. Elon attended Bryanston High School. In one incident, after an altercation with a fellow student, Elon was thrown down concrete steps and beaten severely by the boy and his friends, leading to him being hospitalized for his injuries. Elon described his father berating him after he was discharged from the hospital, saying "I had to stand for an hour as he yelled

at me and called me an idiot and told me that I was just worthless". Errol denied berating Elon but claimed "The boy had just lost his father to suicide and Elon had called him stupid. Elon had a tendency to call people stupid. How could I possibly blame that child?" After the attack, Elon was enrolled in private school.

Elon was an enthusiastic reader of books, later attributing his success in part to having read *The Lord of the Rings*, the *Foundation* series, and *The Hitchhiker's Guide to the Galaxy*. At age ten, he developed an interest in computing and video games, teaching himself how to program from the VIC-20 user manual. At age twelve, Elon sold his BASIC-based game *Blastar* to *PC and Office Technology* magazine for approximately \$500.

Elon Musk is a businessman and investor known for his key roles in the space company SpaceX and the automotive company Tesla, Inc. Other involvements include ownership of X Corp., the company that operates the social media platform X (formerly known as Twitter), and his role in the founding of The Boring Company, xAI, Neuralink, and OpenAI. He is one of the wealthiest individuals in the world; as of August 2024, *Forbes* estimates his net worth to be US\$247 billion.

Musk was born in Pretoria to Maye (*née* Haldeman), a model, and Errol Musk, a businessman and engineer. Musk briefly attended the University of Pretoria before immigrating to Canada at the age of 18, acquiring citizenship through his Canadian-born mother. Two years later he matriculated at Queen's University at Kingston in Canada. Musk later transferred to the University of Pennsylvania and received bachelor's degrees in economics and physics. He moved to California in 1995 to attend Stanford University, but dropped out after two days and, with his brother Kimbal, co-founded the online city guide software company Zip2. The startup was acquired by Compaq for \$307 million in 1999. That same year Musk co-founded X.com, a direct bank. X.com merged with Confinityin 2000 to form PayPal. In October 2002, eBay acquired PayPal for \$1.5 billion. Using \$100 million of the money he made from the sale of PayPal, Musk founded SpaceX, a spaceflight services company, in 2002.

In 2004, Musk was an early investor who provided most of the initial financing in the electric-vehicle manufacturer Tesla Motors, Inc. (later Tesla, Inc.), assuming the position of the company's chairman. He later became the product architect and, in 2008, the CEO. In 2006, Musk helped create SolarCity, a solar energy company that was acquired by Tesla in 2016 and became Tesla Energy. In 2013, he proposed a hyperloop high-

speed vactrain transportation system. In 2015, he co-founded OpenAI, a nonprofit artificial intelligence research company. The following year Musk co-founded Neuralink—a neurotechnology company developing brain computer interfaces—and The Boring Company, a tunnel construction company. In 2018 the U.S. Securities and Exchange Commission (SEC) sued Musk, alleging that he had falsely announced that he had secured funding for a private takeover of Tesla. To settle the case Musk stepped down as the chairman of Tesla and paid a \$20 million fine. In 2022, he acquired Twitter for \$44 billion, merged the company into the newly-created X Corp. and rebranded the service as X the following year. In March 2023, Musk founded xAI, an artificial-intelligence company.

Musk has expressed views that have made him a polarizing figure. He has been criticized for making unscientific and misleading statements, including COVID-19 misinformation, promoting right-wing conspiracy theories, and "endorsing an antisemitic theory"; he later apologized for the latter. His ownership of Twitter has been similarly controversial given the layoffs of large numbers of employees, an increase in hate speech, misinformation and disinformation posts on the website, and changes to Twitter Blue verification.

Musk attended Waterkloof House Preparatory School, Bryanston High School, and then Pretoria Boys High School, where he graduated. Musk was a good but not exceptional student, earning a 61 in Afrikaans and a B on his senior math certification. Musk applied for a Canadian passport through his Canadian-born mother, knowing that it would be easier to immigrate to the United States this way. While waiting for his application to be processed, he attended the University of Pretoria for five months.

Musk arrived in Canada in June 1989, connected with a second cousin in Saskatchewan, and worked odd jobs including at a farm and a lumber mill. In 1990, he entered Queen's University in Kingston, Ontario.

Two years later, he transferred to the University of Pennsylvania, an Ivy League university in Philadelphia, where he earned two degrees: a Bachelor of Arts in physics, and a Bachelor of Science in economics from the university's Wharton School. Although Musk has said that he earned the degrees in 1995, the University of Pennsylvania did not award them until 1997. He reportedly hosted large, ticketed house parties to help pay for tuition, and wrote a business plan for an electronic book-scanning service similar to Google Books. In 1994, Musk held two internships in Silicon Valley: one at energy storage startup Pinnacle Research Institute, which investigated electrolytic ultracapacitors for energy storage, and another at Palo Alto-based startup Rocket Science Games. In 1995, he was accepted to a graduate program in materials science at Stanford University, but did not enroll. Musk decided to join the Internet boom, applying for a job at <u>Netscape</u>, to which he reportedly never received a response.

# Zip2

In 1995, Musk, his brother Kimbal, and Greg Kouri founded Global Link Information Network, later renamed to Zip2. The company developed an Internet city guide with maps, directions, and yellow pages, and marketed it to newspapers. They worked at a small rented office in Palo Alto, with Musk coding the website every night. Eventually, Zip2 obtained contracts with *The New York Times* and the *Chicago Tribune*. The brothers persuaded the board of directors to abandon a merger with CitySearch; however, Musk's attempts to become CEO were thwarted. Compaq acquired Zip2 for \$307 million in cash in February 1999, and Musk received \$22 million for his 7-percent share.

# X.com and PayPal

In March 1999, Musk co-founded X.com, an online financial services and email payment company with \$12 million of the money he made from the Compaq acquisition. X.com was one of the first online banks that was federally insured, and over 200,000 customers joined in its initial months of operation.

Musk's friends expressed skepticism about the naming of the online bank, fearing it might have been mistaken for a pornographic site. Musk brushed off their concerns, emphasizing that the name was meant to be straightforward, memorable, and easy to type. Additionally, he was fond of the email addresses derived from it, such as "e@x.com".

Even though Musk founded the company, investors regarded him as inexperienced and replaced him with Intuit CEO Bill Harris by the end of the year.

In 2000, X.com merged with the online bank Confinity to avoid competition, as the latter's money-transfer service PayPal was more popular than X.com's service. Musk then returned as CEO of the merged company. His preference for Microsoft- over Unix-based software caused a rift among the company's employees, and eventually led Confinity co-founder Peter

Thiel to resign. With the company suffering from compounding technological issues and the lack of a cohesive business model, the board ousted Musk and replaced him with Thiel in September 2000. Under Thiel, the company focused on the money-transfer service and was renamed PayPal in 2001.

In 2002, PayPal was acquired by <u>eBay</u> for \$1.5 billion in stock, of which Musk—PayPal's largest shareholder with 11.7% of shares received \$176 million. In 2017, more than 15 years later, Musk purchased the X.com domain from PayPal for its "sentimental value". In 2022, Musk discussed a goal of creating "X, the everything app".

## **SpaceX**

In early 2001, Musk became involved with the nonprofit Mars Society and discussed funding plans to place a growth-chamber for plants on Mars. In October of the same year, he traveled to Moscow, Russia with Jim Cantrell and Adeo Ressi to buy refurbished intercontinental ballistic missiles (ICBMs) that could send the greenhouse payloads into space. He met with the companies NPO Lavochkin and Kosmotras; however, Musk was seen as a novice and the group returned to the United States empty-handed. In February 2002, the group returned to Russia with Mike Griffin (president of In-Q-Tel) to look for three ICBMs. They had another meeting with Kosmotras and were offered one rocket for \$8 million, which Musk rejected. He instead decided to start a company that could build affordable rockets. With \$100 million of his own money, Musk founded SpaceX in May 2002 and became the company's CEO and chief engineer.

SpaceX attempted its first launch of the Falcon 1 rocket in 2006. Though the rocket failed to reach Earth orbit, it was awarded a Commercial Orbital Transportation Services program contract from NASA Administrator (and former SpaceX consultant) Mike Griffin later that year. After two more failed attempts that nearly caused Musk and his companies to go bankrupt, SpaceX succeeded in launching the Falcon 1 into orbit in 2008. Later that year, SpaceX received a \$1.6 billion Commercial Resupply Services contract from NASA for 12 flights of its Falcon 9 rocket and Dragon spacecraft to the International Space Station (ISS), replacing the Space Shuttle after its 2011 retirement. In 2012, the Dragon vehicle docked with the ISS, a first for a commercial spacecraft.

Working towards its goal of reusable rockets, in 2015 SpaceX successfully landed the first stage of a Falcon 9 on a land platform. Later landings were achieved on autonomous spaceport drone ships, an ocean-based recovery platform. In 2018, SpaceX launched the Falcon Heavy; the inaugural mission carried Musk's personal Tesla Roadster as a dummy payload. Since 2019, SpaceX has been developing Starship, a fully-reusable, super-heavylift launch vehicle intended to replace the Falcon 9 and the Falcon Heavy. In 2020, SpaceX launched its first crewed flight, the Demo-2, becoming the first private company to place astronauts into orbit and dock a crewed spacecraft with the ISS. In 2024, NASA awarded SpaceX an \$843 million contract to deorbit the ISS at the end of its lifespan.

# Starlink

In 2015, SpaceX began development of the Starlink constellation of low-Earth-orbit satellites to provide satellite Internet access, with the first two prototype satellites launched in February 2018. A second set of test satellites, and the first large deployment of a piece of the constellation, occurred in May 2019, when the first 60 operational satellites were launched. The total cost of the decade-long project to design, build, and deploy the constellation was estimated by SpaceX in 2020 to be \$10 billion. Some critics, including the International Astronomical Union, have alleged that Starlink blocks the view of the sky and poses a collision threat to spacecraft.

During the March 2022 Russian invasion of Ukraine, Musk sent Starlink terminals to Ukraine to provide Internet access and communication. In October 2022, Musk stated that about 20,000 satellite terminals had been donated to Ukraine, together with free data transfer subscriptions, which cost SpaceX \$80 million. After asking the United States Department of Defense to pay for further units and future subscriptions on behalf of Ukraine, Musk publicly stated that SpaceX would continue to provide Starlink to Ukraine for free, at a yearly cost to itself of \$400 million. At the same time, Musk refused to block Russian state media on Starlink, declaring himself "a <u>free speech</u> absolutist".

In September 2023, Ukraine asked for the activation of Starlink satellites over Crimea to attack Russian naval vessels located at the port Sevastopol; Musk denied the request, citing concerns that Russia would respond with a nuclear attack.

# Tesla

Tesla, Inc., originally Tesla Motors, was incorporated in July 2003 by Martin Eberhard and Marc Tarpenning. Both men played active roles in the company's early development prior to Musk's involvement. Musk led the Series A round of investment in February 2004; he invested \$6.35 million, became the majority shareholder, and joined Tesla's board of

directors as chairman. Musk took an active role within the company and oversaw Roadster product design, but was not deeply involved in day-to-day business operations.

Following a series of escalating conflicts in 2007, and the financial crisis of 2007–2008, Eberhard was ousted from the firm. Musk assumed leadership of the company as CEO and product architect in 2008. A 2009 lawsuit settlement with Eberhard designated Musk as a Tesla co-founder, along with Tarpenning and two others. As of 2019, Musk was the longest-tenured CEO of any automotive manufacturer globally. In 2021, Musk nominally changed his title to "Technoking" while retaining his position as CEO.

Tesla began delivery of the Roadster, an electric sports car, in 2008. With sales of about 2,500 vehicles, it was the first serial production all-electric car to use lithium-ion battery cells. Tesla began delivery of its four-door Model S sedan in 2012. A crossover, the Model X was launched in 2015. A mass-market sedan, the Model 3, was released in 2017. In 2020, the Model 3 became the all-time bestselling plug-in electric car worldwide, and in June 2021 it became the first electric car to sell 1 million units globally. A fifth vehicle, the Model Y crossover, was launched in 2020, and in December 2023, became the best-selling vehicle of any kind, as well as the all-time best-selling electric car. The Cybertruck, an all-electric pickup truck, was unveiled in 2019, and delivered in November 2023. Under Musk, Tesla has also constructed multiple lithium-ion battery and electric vehicle factories, named Gigafactories.

Since its initial public offering in 2010, Tesla stock has risen significantly; it became the most valuable carmaker in summer 2020, and it entered the S&P 500 later that year. In October 2021, it reached a market capitalization of \$1 trillion, the sixth company in U.S. history to do so. In November 2021, Musk proposed on Twitter to sell 10% of his Tesla stock, since "much is made lately of unrealized gains being a means of tax avoidance". After more than 3.5 million Twitter accounts supported the sale, Musk sold \$6.9 billion of Tesla stock within a week, and a total of \$16.4 billion by year end, reaching the 10% target. In February 2022, *The Wall Street Journal* reported that both Musk and his brother Kimbal were under investigation by the Securities and Exchange Commission (SEC) for possible insider trading related to the sale. In 2022, Musk unveiled Optimus, a robot being developed by Tesla. In June 2023, Musk met with Indian Prime Minister Narendra Modi in New York City, stating he was interested in investing in India "as soon as humanly possible".

# SEC and shareholder lawsuits regarding tweets

In 2018, Musk was sued by the SEC for a tweet stating that funding had been secured for potentially taking Tesla private. The lawsuit characterized the tweet as false, misleading, and damaging to investors, and sought to bar Musk from serving as CEO of publicly traded companies. Two days later, Musk settled with the SEC, without admitting or denying the SEC's allegations. As a result, Musk and Tesla were fined \$20 million each, and Musk was forced to step down for three years as Tesla chairman but was able to remain as CEO. Shareholders filed a lawsuit over the tweet, and in February 2023, a jury found Musk and Tesla not liable. Musk has stated in interviews that he does not regret posting the tweet that triggered the SEC investigation.

In 2019, Musk stated in a tweet that Tesla would build half a million cars that year. The SEC reacted by asking a court to hold him in contempt for violating the terms of the 2018 settlement agreement. A joint agreement between Musk and the SEC eventually clarified the previous agreement details, including a list of topics about which Musk needed preclearance. In 2020, a judge blocked a lawsuit that claimed a tweet by Musk regarding Tesla stock price ("too high imo") violated the agreement. Freedom of Information Act (FOIA)-released records showed that the SEC concluded Musk had subsequently violated the agreement twice by tweeting regarding "Tesla's solar roof production volumes and its stock price".

# SolarCity and Tesla Energy

Musk provided the initial concept and financial capital for SolarCity, which his cousins Lyndon and Peter Rive founded in 2006. By 2013, SolarCity was the second largest provider of solar power systems in the United States. In 2014, Musk promoted the idea of SolarCity building an advanced production facility in Buffalo, New York, triple the size of the largest solar plant in the United States. Construction of the factory started in 2014 and was completed in 2017. It operated as a joint venture with Panasonic until early 2020.

Tesla acquired SolarCity for \$2 billion in 2016 and merged it with its battery unit to create Tesla Energy. The deal's announcement resulted in a more than 10% drop in Tesla's stock price; at the time, SolarCity was facing liquidity issues. Multiple shareholder groups filed a lawsuit against Musk and Tesla's directors, stating that the purchase of SolarCity was done solely to benefit Musk and came at the expense of Tesla and its shareholders. Tesla directors settled the lawsuit in January 2020, leaving Musk the sole remaining defendant. Two years later, the court ruled in Musk's favor.

## Neuralink

In 2016, Musk co-founded Neuralink, a neurotechnology startup company, with an investment of \$100 million. Neuralink aims to integrate the human brain with artificial intelligence (AI) by creating devices that are embedded in the brain. Such technology could enhance memory or allow the devices to communicate with software. The company also hopes to develop devices with which to treat neurological conditions such as Alzheimer's disease, dementia, and spinal cord injuries.

In 2019, Musk announced work on a device akin to a sewing machine that could embed threads into a human brain. In an October 2019 paper that detailed some of Neuralink's research, Musk was listed as the sole author, which rankled Neuralink researchers. At a 2020 live demonstration, Musk described one of their early devices as "a Fitbit in your skull" that could soon cure paralysis, deafness, blindness, and other disabilities. Many neuroscientists and publications criticized these claims, with *MIT Technology Review* describing them as "highly speculative" and "neuroscience theater". During the demonstration, Musk revealed a pig with a Neuralink implant that tracked neural activity related to smell. In 2022, Neuralink announced that clinical trials would begin by the end of the year.

Neuralink has conducted further animal testing on macaque monkeys at the University of California, Davis' Primate Research Center. In 2021, the company released a video in which a Macaque played the video game Pong via a Neuralink implant. The company's animal trials—which have caused the deaths of some monkeys—have led to claims of animal cruelty. The Physicians Committee for Responsible Medicine has alleged that Neuralink's animal trials have violated the Animal Welfare Act.<sup>[190]</sup> Employees have complained that pressure from Musk to accelerate development has led to botched experiments and unnecessary animal deaths. In 2022, a federal probe was launched into possible animal welfare violations by Neuralink. In September 2023, the Food and Drug Administration approved Neuralink to initiate human trials, and it plans to conduct a six-year study.

# **The Boring Company**

In 2017, Musk founded The Boring Company to construct tunnels, and revealed plans for specialized, underground, high-occupancy vehicles that could travel up to 150 miles per hour (240 km/h) and thus circumvent

above-ground traffic in major cities. Early in 2017, the company began discussions with regulatory bodies and initiated construction of a 30-foot (9.1 m) wide, 50-foot (15 m) long, and 15-foot (4.6 m) deep "test trench" on the premises of SpaceX's offices, as that required no permits. The Los Angeles tunnel, less than two miles (3.2 km) in length, debuted to journalists in 2018. It used Tesla Model Xs and was reported to be a rough ride while traveling at suboptimal speeds.

Two tunnel projects announced in 2018, in Chicago and West Los Angeles, have been canceled. However, a tunnel beneath the Las Vegas Convention Center was completed in early 2021. Local officials have approved further expansions of the tunnel system.

## Twitter / X

Musk expressed interest in buying Twitter as early as 2017, and had questioned the platform's commitment to freedom of speech. Additionally, his ex-wife Talulah Riley had urged him to buy Twitter to stop the "wokeism". In January 2022, Musk started purchasing Twitter shares, reaching a 9.2% stake by April, making him the largest shareholder. When this was publicly disclosed, Twitter shares experienced the largest intraday price surge since the company's 2013 initial public offering. On April 4, Musk agreed to a deal that would appoint him to Twitter's board of directors and prohibit him from acquiring more than 14.9% of the company. However, on April 13, Musk made a \$43 billion offer to buy Twitter, launching a takeover bid to buy 100% of Twitter's stock at \$54.20 per share. In response, Twitter's board adopted a "poison pill" shareholder rights plan to make it more expensive for any single investor to own more than 15% of the company without board approval. Nevertheless, by the end of the month Musk had successfully concluded his bid for approximately \$44 billion. This included about \$12.5 billion in loans against his Tesla stock and \$21 billion in equity financing.

Tesla's stock market value sank by over \$100 billion the next day in reaction to the deal. He subsequently tweeted to his 86 million followers' criticism of Twitter executive Vijaya Gadde's policies, which led to some of them engaging in sexist and racist harassment against her. Exactly a month after announcing the takeover, Musk stated that the deal was "on hold" following a report that 5% of Twitter's daily active users were spam accounts. Although he initially affirmed his commitment to the acquisition, he sent notification of his termination of the deal in July; Twitter's Board of Directors responded that they were committed to holding him to the transaction. On July 12, 2022, Twitter formally sued Musk in

the Chancery Court of Delaware for breaching a legally binding agreement to purchase Twitter. In October 2022, Musk reversed again, offering to purchase Twitter at \$54.20 per share. The acquisition was officially completed on October 27.

Immediately after the acquisition, Musk fired several top Twitter executives including CEO Parag Agrawal; Musk became the CEO instead. He instituted a \$7.99 monthly subscription for a "blue check", and laid off a significant portion of the company's staff. Musk lessened content moderation, including reinstating accounts like *The Babylon Bee*. The Southern Poverty Law Center noted that Twitter has verified numerous extremists; hate speech also increased on the platform after his takeover.

In December 2022, Musk released internal documents relating to Twitter's moderation of Hunter Biden's laptop controversy in the leadup to the 2020 presidential election. Comments on these internal documents by journalists Matt Taibbi, Bari Weiss, Michael Shellenberger and others were posted on Twitter as the Twitter Files. The United States House Committee on the Judiciary held hearings on the Twitter Files on March 9, 2023, at which Taibbi and Shellenberger gave testimony.

In late 2022, Musk promised to step down as CEO after a Twitter poll posted by Musk found that a majority of users wanted him to do so. Five months later, Musk stepped down from CEO and placed former NBC Universal executive Linda Yaccarino in the position and transitioned his role to executive chairman and chief technology officer.

On November 20, 2023, in a U.S. District Court in Texas, X filed a lawsuit stating that Media Matters "manipulated" the X platform, in that it used accounts that followed major brands, and "resorted to endlessly scrolling and refreshing" the feed until it found ads next to extremist posts.

## Leadership style

Musk is often described as a micromanager and has called himself a "nanomanager". *The New York Times* has characterized his approach as absolutist. Musk does not make formal business plans. He has forced employees to adopt the company's own jargon and launched ambitious, risky, and costly projects against his advisors' recommendations, such as removing front-facing radar from Tesla Autopilot. His insistence on vertical integration causes his companies to move most production in-house. While this resulted in saved costs for SpaceX's rocket, vertical integration (as of 2018) has caused many usability problems for Tesla's internal corporate software.

Musk's handling of employees—whom he communicates with directly through mass emails—has been characterized as "carrot and stick", rewarding those "who offer constructive criticism" while also being known to impulsively threaten, swear at, and fire his employees. Musk said he expects his employees to work for long hours, sometimes 80 hours per week. He has his new employees sign strict non-disclosure agreements and often fires in sprees, such as during the Model 3 "production hell" in 2018. In 2022, Musk revealed plans to fire 10 percent of Tesla's workforce, due to his concerns about the economy. That same month, he suspended remote work at SpaceX and Tesla and threatened to fire employees who do not work 40 hours per week in the office. He laid off more than 10 percent of the Tesla workforce in early 2024.

Musk's leadership has been praised by some, who credit it with the success of Tesla and his other endeavors, and criticized by others, who see him as callous and his managerial decisions as "showing a lack of human understanding." The 2021 book *Power Play* contains anecdotes of Musk berating employees. *The Wall Street Journal* reported that, after Musk insisted on branding his vehicles as "self-driving", he faced criticism from his engineers for putting customer "lives at risk", with some employees resigning in consequence.

## **Musk Foundation**

Musk is president of the Musk Foundation he founded in 2001, whose stated purpose is to: provide solar-power energy systems in disaster areas; support research, development, and advocacy (for interests including human space exploration, pediatrics, renewable energy and "safe artificial intelligence"); and support science and engineering educational efforts.

As of 2020, the foundation has made 350 donations. Around half of them were made to scientific research or education nonprofits. Notable beneficiaries include the Wikimedia Foundation, his alma mater the University of Pennsylvania, and his brother Kimbal's nonprofit Big Green. From 2002 to 2018, the foundation gave \$25 million directly to nonprofit organizations, nearly half of which went to Musk's OpenAI, which was a nonprofit at the time. The Foundation also allocated \$100 million of donations to be used to establish a new higher education university in Texas.

In 2012, Musk took the Giving Pledge, thereby committing to give the majority of his wealth to charitable causes either during his lifetime or in his

will. He has endowed prizes at the X Prize Foundation, including \$100 million to reward improved carbon capture technology.

*Vox* said in February of 2021, "the Musk Foundation is almost entertaining in its simplicity and yet is strikingly opaque", noting that its website was only 33 words in plain-text. In 2020, *Forbes* gave Musk a philanthropy score of 1, because he had given away less than 1% of his net worth. In November 2021, Musk donated \$5.7 billion of Tesla's shares to charity, according to regulatory filings. However, Bloomberg News noted that all of it went to his own foundation, bringing Musk Foundation's assets up to \$9.4 billion at the end of 2021. The foundation disbursed \$160 million to nonprofits that year. Reporting by *The New York Times* found that in 2022, the Musk Foundation gave away \$230 million less than the minimum required by law to maintain tax-deductible status, and that in 2021 and 2022 over half the foundation's funds went to causes connected to Musk, his family, or his businesses.

## **Hyperloop**

In August 2013, Musk announced plans for a version of a vacuum tube train and assigned a dozen engineers from SpaceX and Tesla to establish the conceptual foundations and create initial designs. Later that year, Musk unveiled the concept, which he dubbed the Hyperloop. The alpha design for the system was published in a whitepaper posted to the Tesla and SpaceX blogs. The document scoped out the technology and outlined a notional route where such a transport system could be built between the Greater Los Angeles Area and the San Francisco Bay Area, at an estimated cost of \$6 billion. The proposal, if technologically feasible at the costs cited, would make Hyperloop travel cheaper than any other mode of transport for such long distances.

In 2015, Musk announced a design competition for students and others to build Hyperloop pods, to operate on a SpaceX-sponsored mile-long track, for a 2015–2017 Hyperloop pod competition. The track was used in January 2017, and Musk also announced that the company had started a tunnel project, with Hawthorne Municipal Airport as its destination. In July 2017, Musk said that he had received "verbal government approval" to build a Hyperloop from New York City to Washington, D.C., with stops in Philadelphia and Baltimore. Mention of the projected DC-to-Baltimore leg was removed from The Boring Company website in 2021. The tunnel project to Hawthorne was discontinued in 2022 and is planned to be converted into parking spots for SpaceX workers. Biographer Ashlee Vance noted that Musk hoped Hyperloop would "make the public and legislators rethink the high-speed train" proposal current in California at the time and consider more "creative" ideas.

# **OpenAI** and xAI

In December 2015, Musk co-founded OpenAI, a not-for-profit artificial intelligence (AI) research company aiming to develop artificial general intelligence intended to be safe and beneficial to humanity. A particular focus of the company was to democratize

artificial superintelligence systems, against governments and corporations. Musk pledged \$1 billion of funding to OpenAI. In 2023, Musk tweeted that he had ended up giving a total of \$100 million to OpenAI. TechCrunch later reported that, according to its own investigation of public records, "only \$15 million" of OpenAI's funding could be definitively traced to Musk. Musk subsequently stated that he had donated about \$50 million.

In 2018, Musk left the OpenAI board to avoid possible future conflicts with his role as CEO of Tesla as Tesla increasingly became involved in AI through Tesla Autopilot. Since then, OpenAI has made significant advances in machine learning, producing neural networks such as ChatGPT (producing human-like text), and DALL-E (generating digital images from natural language descriptions).

On July 12, 2023, Elon Musk launched an artificial intelligence company called xAI, which aims to develop a generative AI program that competes with existing offerings like ChatGPT. The company hired engineers from Google and OpenAI. Musk obtained funding from investors in SpaceX and Tesla.

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# Henry J. Kaiser - Kaiser Motors

Henry John Kaiser (May 9, 1882 – August 24, 1967) was an American industrialist who became known for his shipbuilding and construction projects, then later for his involvement in fostering modern American health care. Prior to World War II, Kaiser was involved in the construction industry; his company was one of those that built the Hoover Dam. He established the Kaiser Shipyards, which built Liberty ships during World War II, after which he formed Kaiser Aluminum and Kaiser Steel. Kaiser organized Kaiser Permanente health care for his workers and their families. He led Kaiser-Frazer followed by Kaiser Motors;



automobile companies known for the safety of their designs. Kaiser was involved in large construction projects such as civic centers and dams, and invested in real estate, later moving into television broadcasting.

Kaiser was born on May 9, 1882, in Sprout Brook, New York, the son of Franz and Anna Marie Kaiser, ethnic German immigrants. His father was a shoemaker. Kaiser's first job was as a cash boy in a Utica, New York, department store at the age of 16. He worked as an apprentice photographer early in life, and was running the studio in Lake Placid by the age of 20. He used his savings to move to Washington state in 1906, where he started a construction company fulfilling government contracts.

Kaiser met his future wife, Bess Fosburgh, the daughter of a Virginia lumberman, when she came into his photographic shop in Lake Placid, New York, to buy film. Fosburgh's father demanded that Kaiser show that he was financially stable before he would consent to their marriage. Kaiser moved to Spokane and became a top salesman at a hardware company, returning ten months later with enough money to placate his future father-in-law. They married on April 8, 1907, and had two children, Edgar Kaiser, Sr and Henry Kaiser, Jr.

In 1914 Kaiser founded a paving company, Henry J. Kaiser Co., Ltd., one of the first to use heavy construction machinery. His firm expanded significantly in 1927 when it received an \$18-million contract to build roads

in Camagüey Province, Cuba. In 1931 his firm was one of the prime contractors in building the Hoover Dam on the Colorado River, and subsequently the Bonneville and Grand Coulee Dams on the Columbia River.

While doing business among the "Six Companies, Inc.", and remotely related to his interest in motor boat racing, he set up shipyards in Seattle and Tacoma, where he began using mass-production techniques, such as using welding instead of rivets.

## World War II

Henry Kaiser was an early advocate of bringing American aid to those suffering from German aggression in Europe. In 1940, a full year before the US had entered World War II, Kaiser served as National Chairman of United Clothing Collection for International War Relief to provide much-needed clothing for the refugees from Hitler's conquests in Europe.

## **Kaiser Shipbuilding**

Kaiser fought Hitler far more directly with what he is most famous for: the Kaiser Shipyard in Richmond, California; during World War II adapting production techniques to enable building cargo ships with an average construction time of 45 days. These ships became known as Liberty ships and were later supplemented in the mid-war period by improved, larger and faster Victory ships. He became world-renowned when his teams built a ship in four days. The keel for the 10,500-ton SS *Robert E. Peary* was laid on Sunday, November 8, 1942, and the ship was launched in California from the Richmond Shipyard#2 on Thursday, November 12, four days and  $15+^{1/2}$  hours later. The previous record had been ten days for the Liberty ship *Joseph M. Teal*.

A visit to a Ford assembly plant by one of his associates led to a decision to use welding instead of riveting for shipbuilding. Welding was advantageous because it took less strength to do and it was easier to teach to thousands of employees, who were mostly unskilled laborers and many women. Kaiser adopted the use of sub-assemblies in ship construction. Formerly, hundreds of laborers crowded together to complete a ship. Though that practice had been tried on the East Coast and in Britain, Kaiser was able to take full advantage of the process by constructing new shipyards using this concept.

Other Kaiser shipyards were located in Ryan Point (Vancouver) on the Columbia River in Washington state and on Swan Island in Portland, Oregon. A smaller vessel was turned out in 71 hours and 40 minutes from the Vancouver yard on November 16, 1942. The Kaiser hulls also became

America's smaller, more numerous "escort carriers", over 100 small aircraft carriers employed in both the Pacific and the Atlantic theaters. The concepts that he developed for the mass production of commercial and naval ships are still in use.

One problem with welded hulls that was unknown is the issue of brittle fracture. That caused the loss of some Liberty ships in cold seas as the welds failed and the hulls would crack, sometimes completely into two. Constance Tipper was one of the first people to discover why the Liberty ships were breaking into two. Minor changes in design and more rigid welding control implemented in 1947 eliminated Liberty ship losses until 1955. By his membership in a group called the Six Companies, Kaiser also had a major role in the Joshua Hendy Iron Works of Sunnyvale, California, which built the EC-2 triple expansion steam engines for the Liberty ships. Kaiser and his associates organized the California Shipbuilding Corporation.

#### **Kaiser Permanente**

At Kaiser Shipyards in Richmond, California, Kaiser implemented the pioneering idea of Sidney Garfield for a prepaid hospital financing plan. Opened on August 10, 1942, Kaiser Richmond Field Hospital for Kaiser Shipyards was financed by the U.S. Maritime Commission, sponsored by Henry J. Kaiser's Permanente Foundation, and run by Garfield. In part because of wartime materials rationing, the Field Hospital was a singlestory wood-frame structure designed in a simple modernist mode. Originally intended for use primarily as an emergency facility, the Field Hospital opened with only 10 beds. Later additions had increased its capacity to 160 beds by 1944.

Kaiser's Richmond Field Hospital served as the mid-level component of a three-tier medical care system that included six well-equipped First Aid Stations at the shipyards and the main Permanente Hospital in Oakland, where the most critical cases were treated. By August 1944, 92.2% of all Richmond shipyard employees had joined Kaiser Permanente, the first voluntary group plan in the country to feature group medical practice, prepayment, and substantial medical facilities on such a large scale. After the war, the Health Plan was expanded to include workers' families. To serve employees at his diverse businesses, Kaiser opened Permanente facilities in Walnut Creek, California; Honolulu, Hawaii; and many other locations. Since then, locations have opened in Hawaii; Dublin, California; Livermore, California; Pleasanton, California; Martinez, California; Santa Clara, California; and Antioch, California. However, the Kaiser family itself has had no connection with Kaiser Permanente.

# **Kaiser-Frazer**

In 1945, Kaiser partnered with veteran automobile executive Joseph Frazer to establish a new automobile company from the remnants of Graham-Paige, of which Frazer had been president. The new company was named Kaiser-Frazer. It used a surplus Ford Motor Company defense plant at Willow Run, Michigan originally built for WWII aircraft production by Ford. Kaiser-Frazer (later Kaiser Motors) produced cars under the Kaiser and Frazer names until 1955, when it abandoned the U.S. market and moved production to Argentina. Although still producing Jeep vehicles, Kaiser-Willys ceased production of passenger cars in the U.S. after the 1955 model year. They continued producing Kaiser Carabela sedans, identical to the 1955 Kaiser U.S. sedans, in Argentina until 1961.

# **Kaiser Superbus**

He built the Kaiser Superbus (1946, scrapped 1951) 60 feet in length with room for 63 seated passengers, and two restrooms, was constructed using magnesium, and aluminum. Only one prototype would be built. A small model used by Kaiser's sales team was reconstructed in 2016. It was a highway bus meant to go from train station to train station within the Santa Fe Railway. It was built for Santa Fe Trailways (later Continental Trailways, part of National Trailways Bus System) to run on longer routes, not entirely inside urban areas. Construction took place at the Kaiser Permanente Metals Corporation plant in Los Altos. The first, and only route, was between Los Angeles and San Francisco. Santa Fe Railway had to petition The California State Railroad Commission to operate the bus on state highways as it used a trailer, which were forbidden to use.

# Henry J.

The Henry J was built by the Kaiser-Frazer Corporation and named after its chairman, Henry J. Kaiser. Production of six-cylinder models began in July 1950, and four-cylinder production started shortly after Labor Day, 1950. Official public introduction was September 28, 1950. The car was marketed through 1954.

Kaiser-Frazer held a contest to name their new car, with Henry J being the winning name. A lawsuit by a shareholder in the company alleged that "The name is so ridiculous that it can be justified on no other ground than to satisfy a deep ingrained megalomanic desire for personal publicity". It is unknown the outcome of the suit and in the end, the car was named after Kaiser.

## **Jeep and South America**

In 1953, Kaiser purchased Willys-Overland, manufacturer of the Jeep line of utility vehicles, changing its name to Willys Motors. In the late 1960s, Kaiser's South American operations were sold to a Ford - Renault combination. In 1963, the name was changed again to Kaiser-Jeep, which was ultimately sold to American Motors Corporation in 1970. As part of the transaction, Kaiser acquired a 22% interest in AMC, which was later divested.

## **Kaiser Aluminum**

Kaiser founded Kaiser Aluminum in 1946 by leasing and later purchasing aluminum facilities in Washington state from the U.S. government. The original facilities included reduction plants at Mead and Tacoma, and a rolling mill at Trentwood. Kaiser Aluminum expanded to become an integrated aluminum company, mining and refining bauxite and creation of alumina, the production of primary aluminum from alumina, and manufacturing fabricated and semi-fabricated aluminum products.

## Death

On August 24, 1967, Kaiser died at the age of 85 in Honolulu. He is interred in Mountain View Cemetery in the Main Mausoleum, in Oakland, California.

He was outlived by his second wife, Alyce Chester Kaiser, who inherited half his fortune, and by his elder son, Edgar F. Kaiser, who had been president of the Kaiser Industries Corporation since 1956.

One of Kaiser's grandsons, Edgar Kaiser Jr., became president of Kaiser Steel from 1981 to 1984, and briefly owned the Denver Broncos NFL franchise.

Another grandson, Henry, is an Antarctic diver and experimental guitarist.

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# George W. Mason - AMC

George Walter Mason (March 12, 1891 – October 8, 1954) was an American industrialist. During his career Mason served as the chairman and CEO of the Kelvinator Corporation (1928-1937), chairman and CEO of the Nash-Kelvinator Corporation (1937-1954), and founder, chairman and CEO of American Motors Corporation (1954).

## Early life and education

Mason was born in Valley City, North Dakota to Norwegian-American parents. Mason received his education at the University of Michigan where he designed a specific course for engineering students that combined three years of engineering and a final year in business administration.



Mason had worked for local garages in his youth and upon receiving his degree from Michigan, he accepted a position with Studebaker. Mason changed employers several times before entering military service during World War I. In 1921, Mason secured a position with Walter P. Chrysler at Maxwell-Chalmers, which Chrysler had reorganized and would use to develop Chrysler brand automobiles.

From Maxwell-Chalmers, Mason went to Copeland Products of Detroit in 1926 before becoming the President of the Kelvinator Corporation, a leader in the emerging electric refrigeration industry. Under Mason, Kelvinator quadrupled its profits and became second only to General Motors Frigidaire product line in home refrigeration sales despite the effects of the Great Depression.

## **Nash Motors**

When Charles W. Nash, founder of Nash Motors began looking for his successor, he turned to Mason upon the recommendation of Walter Chrysler. Mason initially rebuffed Nash's offer; however, when Nash asked what it would take to bring Mason over to Nash, Mason stated that he would not take the position if Kelvinator was not included in the deal. Nash saw merit

in this idea; General Motors owned Frigidaire, Borg-Warner owned Norge Appliance, and Chrysler operated its own air conditioning division, Airtemp. Nash and Mason came to terms and the deal announced in November 1936. The two firms merged to form Nash-Kelvinator Corporation with Mason as its CEO. By 1940, Mason continued to grow Kelvinator's market share and returned Nash to profitable status.

Continuing Charles Nash's decades of success by building cars "embodying honest worth ... [at] a price level which held out possibilities of a very wide market." Mason began exploring the possibilities of aerodynamics for automobile designs and used of wind tunnel tests during World War II. Nash's Chief of engineering, Nils Erik Wahlberg, worked with Theodore (Ted) Ulrich in the development of Nash's all-new and radically styled 1949 Airflyte models. This was a comprehensive adoption of aerodynamic principles in a low-priced mass-produced post-war automobile. The Airflyte's design also extended its body over car's front wheels, and these enshrouded front wheels remained a Nash hallmark until 1957.

Mason was a large and gregarious man, standing well more than six feet (183 cm) tall and weighing over 300 pounds (136 kg). Despite his large physical size, he was fascinated with small cars, especially the concept of a small, inexpensive car and Nash's marketing and strategic management. As a result, the automaker introduced three compact car lines:

- Nash Rambler Mason's vision for a small inexpensive compact car was changed in light of raw goods shortages, so Mason directed the car to emerge not as a stripped-down economy car, but as an upmarket compact sedan-convertible.
- Nash-Healey the first American sports car after the Great Depression and developed with partners in Great Britain and Italy.
- Nash Metropolitan a subcompact car built in cooperation with Great Britain's Austin Motors.

However, General Motors and Ford Motor Company were locked in a battle for market supremacy that started in 1945 when Ford's new president, Henry Ford II, had a burning desire to make his company number one again. By 1953, all of the independent automobile manufacturers were also feeling the after effects of Henry Ford's plan to dump tens of thousands of vehicles into the market at discounted prices to try and wrestle the top automotive manufacturing title from GM. General Motors responded by doing the same. With the market flooded by inexpensive cars, Studebaker, Packard, Willys, Hudson, Kaiser Motors, and Nash were all unable to sell their vehicles at loss leader prices to keep up with Ford and GM. The "frantic 1953–54 Ford/GM price war" devastated the remaining "independent" automakers.<sup>[6]</sup>

### Legacy with AMC

The smaller automakers responded to their shrinking market shares by conducting formal and informal merger talks. Willys and Kaiser merged in 1953. Mason brought together Nash and the Hudson Motor Car Company to cut costs and strengthen their sales organizations to meet the intense competition from the Big Three. This merger occurred on May 1, 1954 to form American Motors Corporation (AMC). At the same time, he tried to bring Studebaker and Packard into AMC. He had informal discussions with James J. Nance of Packard to outline his strategic vision for competing with the Big Three. An agreement was reached for parts-sharing arrangements between AMC and Packard and the new 320 cu in (5.2 L) Packard V8 engine and Packard's Ultramatic automatic transmission would be used in the 1955 Nash Ambassador and Hudson Hornet models. In July 1954, Packard acquired Studebaker.

Within months after the formation of AMC, George Mason died on October 8, 1954, at age 63 of acute pancreatitis and pneumonia in Detroit, Michigan and was buried in White Chapel Memorial Cemetery. Mason's protégé, AMC Vice President George W. Romney, succeeded Mason as Chairman and CEO. One of Romney's first acts was to stop rumors that there were additional merger talks between AMC and Studebaker-Packard Corporation or any automakers. According to Mason's obituary in *Time* magazine, had AMC and Studebaker-Packard joined, it would have resulted in the second largest automaker in the world, behind General Motors.

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# Joseph Lowthian Hudson - Hudson Motor Car Co.

Joseph Lowthian Hudson (October 17, 1846 – July 5, 1912), a.k.a. J. L. Hudson, was the merchant who founded the Hudson's department store in Detroit, Michigan. Hudson also supplied the seed capital for the establishment, in 1909, of Roy D. Chapin's automotive venture, which Chapin named the Hudson Motor Car Company in honor of J.L. Hudson.

### **Biography**

Hudson was born in Newcastle upon Tyne, England, and immigrated with his family to Hamilton, Canada West, when he was nine; by the age of fourteen he and members of his family were residing in Michigan. His brother William moved to Buffalo, New York, in 1896,



to operate a branch of the Hudson's store until his death in 1928. While Hudson began his career in merchandising with family members and other outside partners, he founded what would provide the basis for Hudson's Department Stores in 1881 inside a shop at the Detroit Opera House. Hudson at first focused on men's and boy's wear. The retail operation succeeded by setting low prices and a return policy that favored the customer. As business volume grew, Hudson added sales professionals and additional lines of goods, including women's clothing and housewares. Hudson incorporated his venture in 1891 as the J.L. Hudson Company. In addition to providing the seed capital for Hudson Motor Car Company, J.L. Hudson was also involved the American Vapor Stove Company, Dime Savings Bank of Detroit, American Exchange National Bank, the Detroit City Gas Company, and the Third National Bank of Detroit. When the Third National Bank collapsed in the financial panic of 1893, Hudson felt personally liable for the failure and paid from his personal accounts an amount equal to the balances of record held by each account holder. The move cost Hudson \$265,000, however, the good will that it showed also paid Hudson dividends in the form of increasing market share for his businesses. Hudson was also active in civic causes in the greater Detroit area.

Hudson never married, but toward the end of his life, he was engaged to Eida Caroline Schmidt, though he died from a lung problem while on a

business trip on July 5, 1912, before they could marry. Some sources list his place of death as Worthing, England, while some newspaper accounts list the place of death as Paris. His remains were returned to New York City aboard the RMS *Oceanic*. From New York, Hudson's casket was carried to Detroit by train accompanied by members of his family. Services were held July 19, 1912, at Central Methodist Church before interment at Woodlawn Cemetery.

According to biographer Edward L. Lack Jr., Hudson left no personal papers, and the details outside of his public life are few and mostly unknown. Hudson's niece Eleanor Lowthian Clay (1896–1976) was the wife of Edsel Ford.

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# **Powel Crosley**

CROSLEY® is known as a leading pioneer of electronics and appliances! Powel Crosley Jr. (September 18, 1886 – March 28, 1961) was an American inventor, industrialist, and entrepreneur. He was also a pioneer in radio broadcasting, and owner of the Cincinnati Reds major league baseball team. In addition, Crosley's companies manufactured Crosley automobiles and radios, and operated WLW radio station. Crosley, once dubbed "The Henry Ford of Radio," was inducted into the Automotive Hall of Fame in 2010 and the National Radio Hall of Fame in 2013.

He and his brother, Lewis M. Crosley, were responsible for many firsts in consumer products and broadcasting. During World War II, Crosley's facilities produced more proximity fuzes than any other U.S. manufacturer, and made several production design innovations. Crosley Field, a stadium in Cincinnati, Ohio, was renamed for him, and the street-level main entrance to Great American Ball Park in Cincinnati is named Crosley Terrace in his honor. Crosley's Pinecroft estate home in Cincinnati, Ohio, and Seagate, his former winter retreat in Sarasota, Florida are listed in the National Register of Historic Places.

## Timeline

1886 Powel Crosley born September 18, 1886 in Ohio.

1920 Crosley's first radio was named "Harko." Introduced as first low-priced radio at \$20.00 retail, later sold for \$9.00. It was a roaring success and made radio available to the masses. Earned Powel Crosley the reputation "The Henry Ford of Radio.

1921 Crosley's first radio broadcast station was 8xy.

**1922** Crosley received license in March for WL Radio Station, Crosley was the largest radio manufacturer in the world.

1922 WLW was among the first regular scheduled radio stations on the air starting in only 28 stations were in operation throughout the U.S.

**1923** Crosley radio station reached **500,000** watts, the most powerful station in the world,

1929 Crosley designed its own airplane "Moonbeam".

1930 Crosley was the first radio station to broadcast from an airplane. Crosley entered the national Air Race from the West Coast to Chicago, broadcasting from each city across the country.

**1930 First car radio called the Crosley "Roamio".** 

**1333 Crosley introduced his patented shelvador refrigerator. Today every refrigerator looks like a Crosley** 

1934 WLW began broadcasting what is now known as "soap operas".

1937 WLW merchandised 345 Midwestern cities by radio.

**1939** Crosley introduced the first small car in the world. First car with disc brakes.

**1939 Crosley started TV broadcasting.** 

**1940 WLW** became the first station with its own full-time weatherman.

1940 Crosley introduced the first FAX machine called the "Reado."

1941 WLW started broadcasting radio programs from its own farm which became known as "Everybody's Farm.'

1943 The Crosley transmitter during World War 11 became the nation's propaganda station with its 500,000 watts that could be heard in many parts of the world.

**1945 FCC approved the sale of the Crosley Corporation to AVCO.** 

**1946** Crosley's first regular TV station began scheduled telecasting.

1947 Crosley began a regular scheduled telecast of 20 hours a week. First baseball game to be broadcast on television.

**1948** Crosley WLW-TV became the first NBC-TV affiliate.

1954 Crosley pioneered the first portable TV which became the best-selling set in the industry.

1957 Crosley WLW began telecasting color programs. Crosley's

own Cincinnati Reds baseball team became the first sports program ever broadcast in color.

1972 WLW-TV Crosley Broadcasting Division of AVCO consisted of five TV stations and six radio stations and many short-wave stations,

**1976** The new Crosley Shelvador re-entered the industry.

**1977** The new Crosley Corporation purchased all rights to Crosley appliances from AVCO.

1978 Crosley introduced a complete line of major appliances.

1979 Crosley sales policy established as 100% to independent dealers.

**1984 True Value Hardware Stores join Crosley** 

**1988 Admiral Distributors join Crosley Distribution Centers.** 

**1989** Crosley introduced its famous **10-Year Extended Warranty for** Independent dealers.

**1990** Five Canadian Distribution Centers join Crosley; The Modern Crosley Sales Policy is dedicated to independent dealers one hundred percent.

**1996** Crosley celebrates **20** years of successful service to Independent Dealers. **2001** Grasey celebrates **25** years of continued growth and service to Independent



The Crosley Pup 1-tube radio



Groutey is still the only new car you can buy for less for \$1,000. Prices range from \$2008 to \$1,046 delivered at Marion, Ind., Federal tax and handling included. Compare the down payments on a Crosley with any new car. Compare the monthly payments. Figure out how much you'll save on gasoline and oil when you're getting \$5 to 50 miles on a gailon of regular gasoline. Then rou'll know why Cooley is the car America needs most the car you need most."

awellerosley fr





Revision May 20, 2025 rev U 1929 Crosley "Moonbeam"



Crosley radio from the late 1930s.

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**Icyball refrigerator** 



Mignet Crosley "Flea," 1935

# **August and Fred Duesenberg - Duesenberg**

# **Frederick Samuel Duesenberg**

(December 6, 1876 – July 26, 1932) was a German-born American automobile and engine designer, manufacturer and sportsman who was internationally known as a designer of racecars and racing engines. Duesenberg's engineering expertise influenced the development of the automobile, especially during the 1910s and 1920s. He is credited with introducing an eight-cylinder engine, also known as the Duesenberg Straight-8 engine, and four-wheel hydraulic brakes, a first for American cars, in addition to other mechanical innovations. Duesenberg was also



patentholder of his designs for a four-wheel hydraulic brake, an early automatic transmission, and a cooling system, among others. Fred and his younger brother, August "Augie" Duesenberg, shared the patents, filed in 1913 and renewed in 1918, for their "walking beam" four-cylinder engine and the Duesenberg Straight 8 (an eight-cylinder engine with a single, overhead camshaft).

# **August Samuel Duesenberg**

(December 12, 1879 – January 18, 1955) was a German-born American automobile and engine manufacturer who built American racing and racing engines that set speed records at Daytona Beach, Florida, in 1920; won the French Grand Prix in 1921; and won Indianapolis 500-mile races (1922, 1924, 1925, and 1927), as well as setting one-hour and 24-hour speed records on the Bonneville Salt Flats in Utah in 1935. He also shared with his older brother, Frederick S. "Fred" Duesenberg, patents filed in 1913 and renewed in 1918 for a four-cylinder engine design and the Duesenberg Straight 8 (an eight-cylinder engine with a single, overhead camshaft).



# The Duesenberg brothers

Fred and August Duesenberg began designing engines in the early 1900s, after Fred became involved with bicycle racing. The brothers designed a vehicle in 1905, and they formed the Mason Motor Car Company in 1906 with funds from lawyer Edward R. Mason in Des Moines, Iowa. F. L. and Elmer Maytag acquired a majority stake in the company and renamed it the Maytag-Mason Automobile Company until they sold their stake in 1912.

The Duesenberg brothers then moved to Saint Paul, Minnesota, where they established the Duesenberg Motors Company in 1913. Eddie Rickenbacker drove the first Duesenberg-designed vehicle to race at the Indianapolis 500 in 1914, placing tenth. During World War I, the Duesenbergs designed and built aircraft engines in Elizabeth, New Jersey. A Duesenberg driven by Tommy Milton won the 1919 Elgin Trophy. In 1919, the brothers sold their Saint Paul factories.

In 1920, the Duesenberg brothers relocated to Indianapolis, Indiana, where they founded the Duesenberg Automobile & Motors Company, manufacturing the Duesenberg Model A. The brothers assumed engineering roles after signing over the naming rights and patents for Duesenberg engines to promoters Newton E. Van Zandt and Luther M. Rankin. The first Model A was commissioned by Hawaiian businessman and politician Samuel Northrup Castle. The car had a 260-cubic-inch (4.3 L) straight-eight engine that output 88 horsepower (66 kW), the largest engine in a commercially available vehicle at the time, and was the first to have hydraulic brakes on all its wheels.

The company continued to build race cars as well, and a Duesenberg driven by Jimmy Murphy won the 1921 French Grand Prix, the first American car to do so. Duesenberg cars also performed well at the Indianapolis 500 during the 1920s, winning the race in 1922, 1924, 1925 and 1927.

Van Zandt left the company in 1921, after which it struggled financially and entered receivership in 1924. Duesenberg was purchased by Errett Lobban Cord in 1926. August's role in the passenger-car side of the business declined after Cord's takeover, and August worked primarily in Duesenberg's racing division after 1926, designing all Duesenberg race cars built from that year until the company's dissolution. Two years later, Cord had the Duesenbergs make a new model to "outclass" all other American cars. In 1929, the company began selling the Duesenberg Model J, which was powered by a 265-horsepower (198 kW) straight-eight engine. The

body and cabin were custom-built by coachbuilders. Prices for the cars ranged from \$14,000 to \$20,000 at the time.

Duesenbergs were considered to be among the most luxurious American cars ever made. Historian Donald Davidson called them the "most prestigious passenger car" in American history and likened them to an American version of the Rolls-Royce. The vehicles were popular with movie stars, royalty and other wealthy individuals. The company was sold by Cord and dissolved in 1937. The last Duesenberg to be made by the original company was completed in 1940, commissioned by German artist Rudolf Bauer and completed by August Duesenberg after the company had shut down.

In 1998, The Franklin Mint started producing collectible scale models of Duesenberg Coupé Simone, a fictitious custom-made luxury car allegedly manufactured in the late 1930s.

### **Revivals**

Several unsuccessful attempts were made to revive the Duesenberg name. August Duesenberg failed to restart the company in 1947, and an attempt by his son, Fritz, and car designer Virgil Exner to revive the brand failed after the production of one concept car in 1966. In 1970, Bernard Miller bought the Duesenberg Corporation and produced the SSJ model from templates taken from the original 1935 SSJ La Grande body. The body was aluminum over ash. There were grand plans for over 300 SSJ's to be produced but over the company's life span of 1970-1974 only 8 were completed.

## The Auburn Cord Duesenberg Automobile Museum

The automobile museum located in Auburn, Indiana in the United States. Opened in 1974, it is dedicated to preserving cars built by Auburn Automobile, Cord Automobile, and Duesenberg Motors Company.

### Facility

The museum is located in the former administration building of the Auburn Automobile Company, which operated on this property from the early 20th century until its closure in 1937. The building, along with the adjacent service and new parts building, and the L-29 building now occupied by the National Auto & Truck Museum, were together declared a National Historic Landmark in 2005. This complex was recognized as one of the nation's best-preserved examples of an independent auto company's facilities. The showroom and administrative buildings were designed by
architect Alvin M. Strauss in Art Deco style and were built in 1930. The Auburn Automobile Company had its genesis in a carriage manufacturer, and at its height had more than 18 acres (7.3 ha) of facilities here. After its closure, the administration building housed a business selling original and reproduction parts for a number of discontinued manufacturers, including the Auburn, Cord, and Duesenberg nameplates, until 1960.

## **Exhibits and collections**

The museum is organized into seven galleries that display over 120 cars and related exhibits such as restored Auburn Automobile company offices. Some exhibits have interactive kiosks that allow a visitor to hear the sounds the car makes and to see related videos and photographs that show the engineering that went into its design.

The museum exhibits the same Stinson Junior airplane that was on display in when the building was opened in 1930.

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## James Ward & William Doud Packard - Packard Motor Car Co.

Packard (formerly the Packard Motor Car Company) was an American luxury automobile company located in Detroit, Michigan. The first Packard automobiles were produced in 1899, and the last Packards were built in South Bend, Indiana, in 1958.

One of the "Three Ps" – alongside Peerless Motor Company and Pierce-Arrow – the company was known for building high-quality luxury automobiles before World War II. Owning a Packard was considered prestigious, and surviving examples are often found in museums and automobile collections.

Packard vehicles featured innovations, including the modern steering wheel, air-conditioning in a passenger car, and one of the first production 12cylinder engines, adapted from developing the Liberty L-12 engine used during World War I to power warplanes.

During World War II, Packard produced 55,523 units of the two-stage/two-speed supercharger equipped 1,650 cu in (27.0 L) Merlin V-12s engines under contract with Rolls-Royce. Packard also made the 2,490 cu in (40.8 L) versions of the Liberty L-12 V-12 engine. This updated engine powered United States Navy PT boats.





After the Second World War, Packard struggled to survive as an independent automaker against the domestic Big Three (General Motors, Ford, and Chrysler). Packard merged with Studebaker in 1953 and formed the Studebaker-Packard Corporation. This merger was intended to be temporary while an eventual consolidation with American Motors Company (AMC) was planned. Disagreements among the firms' executives thwarted these plans, so Studebaker-Packard remained a separate company. The Packard brand was phased out in 1959 after two years of declining sales of the Studebaker-built 1957 and 1958 model year Packards.

## 1899-1905

Packard was founded by James Ward Packard, his brother William, and their partner, George Lewis Weiss, in Warren, Ohio, where 400 Packard automobiles were built at their factory on 408 Dana Street Northeast, from 1899 until 1903. A mechanical engineer, James Packard believed they could build a better horseless carriage than the Winton cars owned by Weiss, an important Winton stockholder, after Packard complained to Alexander Winton and offered suggestions for improvement, which were ignored. Winton replied to the suggestions by essentially telling Packard to "go build your own car". Packard's first car was built in Warren, Ohio, on November 6, 1899.

Henry Bourne Joy, a member of one of Detroit's oldest and wealthiest families, bought a Packard. Impressed by its reliability, he visited the Packards and soon enlisted a group of investors, including Truman Handy Newberry and Russell A. Alger Jr. On October 2, 1902, this group refinanced and renamed the New York and Ohio Automobile Company as the Packard Motor Car Company, with James Packard as president. Alger later served as vice president. Packard moved operations to Detroit soon after, and Joy became general manager (later chairman of the board). An original Packard, reputedly the first manufactured, was donated by a grateful James Packard to his *alma mater*, Lehigh University, and is preserved there in the Packard Laboratory. Another is on display at the Packard Museum in Warren, Ohio.

While the Black Motor Company's Black went as low as \$375, Western Tool Works' Gale Model A roadster was \$500, the high-volume Oldsmobile Runabout went for \$650, and the Cole 30 and Cole Runabout<sup>[11]</sup> were \$1,500, Packard concentrated on cars with prices starting at \$2,600. The marque developed a following among wealthy purchasers in the United States and abroad, competing with European marques like Rolls-Royce, Renault, Isotta Fraschini, and Mercedes-Benz.

The 3,500,000 sq ft (330,000 m<sup>2</sup>) Packard plant on East Grand Boulevard in Detroit was located on over 40 acres (16 ha) of land. Designed by Albert Kahn Associates, it included an early use of reinforced concrete for an automotive factory when building #10 opened in 1906. Its craftsmen practiced over 80 trades. The dilapidated plant stood until demolition commenced in September 2022, despite repeated fires. The factory is in close proximity to the current General Motors Detroit/Hamtramck Assembly, which was the former site of the Dodge Vehicle factory from 1910 until 1980. Architect Kahn also designed the Packard Proving Grounds in Shelby Township, Michigan.

# 1906–1930

From this beginning, through and beyond the 1930s, Packard-built vehicles were perceived as highly competitive among high-priced luxury American automobiles. The company was commonly referred to as being one of the "Three Ps" of American motordom royalty, along with Pierce-Arrow of Buffalo, New York, and Peerless of Cleveland, Ohio. For most of its history, Packard was guided by its president and General Manager James Alvan Macauley, who served as President of the National Automobile Manufacturers Association. Inducted into the Automobile Hall of Fame, Macauley made Packard the number one designer and producer of luxury automobiles in the United States. The marque was also competitive abroad, with markets in 61 countries. Gross income for the company was \$21,889,000 in 1928 (\$388,402,000 in 2023 dollars). Macauley was also responsible for the iconic Packard slogan, "Ask the Man Who Owns One".

The Packard Six was initially introduced as a senior-level luxury platform for three years starting in 1913, then upgraded to the Packard Twin-Six starting in 1916. The first appearance of the Packard "Goddess of Speed" hood ornament was in 1925 on the Packard Eight and soon adorned all models, while the Cormorant or Swan appeared in the 1930s. The Adonis hood ornament was briefly used in the late 1920s.

In the 1920s, Packard exported more cars than any other in its price class, and in 1930, sold almost twice as many abroad as any other marque priced over US\$2,000 (equivalent to \$36,478 in 2023). In 1931, 10 Packards were owned by the Imperial House of Japan. Between 1924 and 1930, Packard was also the top-selling luxury brand.

In addition to luxury cars, Packard built trucks. A Packard truck carrying a three-ton load drove from New York City to San Francisco between July 8 and August 24, 1912. In the same year, Packard had service depots in 104 cities.

The Packard Motor Corporation Building at Philadelphia, also designed by Albert Kahn, was built in 1910–1911. It was added to the National Register of Historic Places in 1980.

By 1931, Packards were also being produced in Canada.

# 1931–1936

Entering the 1930s, Packard attempted to beat the stock market crash and subsequent Great Depression by manufacturing ever more opulent and expensive cars than it had prior to October 1929, and began offering

different platforms that focused on different price points allowing the company to offer more products and remain competitive. While the Eight five-seater sedan had been the company's top-seller for years, the Twin-Six, designed by Chief engineer Jesse G. Vincent, was introduced for 1932, with prices starting at US\$3,650 (equivalent to \$81,511 in 2023); in 1933, it would be renamed the Packard Twelve, a name it retained for the remainder of its run (through 1939). Also in 1931, Packard pioneered a system it called Ride Control, which made the hydraulic shock absorbers adjustable from within the car. For one year only, 1932, Packard fielded an upper-medium-priced car, the Light Eight, at a base price of \$1,750 (\$39,080 in 2023 dollars), or \$735 (\$16,414 in 2023 dollars) less than the Standard Eight.

Packard rivals Cadillac and Lincoln benefited from the huge support structure of GM and Ford. Packard could not match the two new automotive giants for resources. The 1920s had proven extremely profitable for the company and it had assets of approximately \$20 million in 1932 (\$447,000,000 in 2023 dollars) while many luxury car manufacturers were almost broke. Peerless ceased production in 1932, converting the Cleveland manufacturing plant automobile production to brewing for Carling Black Label Beer. By 1938, Franklin, Marmon, Ruxton, Stearns-Knight, Stutz, Duesenberg, and Pierce-Arrow had all closed.

Packard had one advantage that some other luxury automakers did not: a single production line. By maintaining a single line and interchangeability between models, Packard was able to maintain low costs. Packard did not change models as often as other manufacturers. Rather than introducing new models annually, Packard began using its own "Series" formula for differentiating its model changeovers in 1923 borrowing a strategy from GM called planned obsolescence. The new model series did not debut on a strictly annual basis, with some series lasting nearly two years, and others lasting as brief as seven months. In the long run, Packard averaged approximately one new series per year. By 1930, Packard automobiles were considered part of its Seventh Series. By 1942, Packard was in its Twentieth Series. The "Thirteenth Series" was omitted due to the western superstition about the number 13.

To meet the challenge of the Depression, Packard started producing more affordable cars in the medium price range. This was a necessary step as the demand for hand-built luxury cars had diminished sharply and people who could afford such vehicles were reluctant to be seen in them when unemployment was over 20%. In 1935, the company introduced its first car

under \$1000, the 120. Sales more than tripled that year and doubled again in 1936. To produce the 120, Packard built a separate factory. By 1936, Packard's labor force was divided nearly evenly between the high-priced "Senior" lines (Twelve, Super Eight, and Eight) and the medium-priced "Junior" models, although more than 10 times more Juniors were produced than Seniors. This was because the 120 models were built using thoroughly modern mass production techniques, while the senior Packards used a great deal more hand labor and traditional craftsmanship. Although Packard almost certainly could not have survived the Depression without the highly successful Junior models, they did have the effect of diminishing the Senior models' exclusive image among those few who could still afford a luxury car. The 120 models were more modern in basic design than the Senior models. For example, the 1935 Packard 120 featured independent front suspension and hydraulic brakes, features that did not appear on the Senior Packards until 1937.

During this time, Packards were built in Windsor, Ontario by the Packard Motor Company of Canada to benefit from Imperial Preference as well as to build right-hand-drive cars for export. Production started in 1931, with the best year being 1937, with just over 2,500 cars built. Parts manufactured in Canada included tires, upholstery, radiator cores, headlamps, springs, and wheels, while the engines were locally assembled. Production ended in 1939, although the company maintained an office in Windsor for many years.

### 1937–1941

Packard was still the premier luxury automobile, even though the majority of cars being built were the Packard One-Twenty and Super Eight model ranges. Hoping to catch still more of the market, Packard issued the Packard 115C in 1937, powered by a Packard six-cylinder engine. The decision to introduce the "Packard Six", priced at around \$1200 (\$25,433 in 2023 dollars), was in time for the 1938 recession. This model also tagged Packards as something less exclusive than they had been in the public's mind and in the long run hurt Packard's reputation of building some of America's finest luxury cars. The Six, redesignated 110 in 1940–41, continued for three years after the war.

In 1939, Packard introduced Econo-Drive, a kind of overdrive, claimed able to reduce engine speed 27.8%; it could be engaged at any speed over 30 mph (48 km/h). The same year, the company introduced a fifth, transverse shock absorber and made column shift (known as Handishift) available on the 120 and Six. A new body shape was introduced for the 1941 model year, the Packard Clipper. It was available only as a four-door model on the 127 in (3,226 mm) wheelbase of the 160, but powered by 125 hp (93 kW; 127 PS) version of straight-8 engine used the 120.

# 1942–1945

In 1942, the Packard Motor Car Company converted to 100% war production. During World War II, Packard again built airplane engines, licensing the Merlin engine from Rolls-Royce as the V-1650, which powered the P-51 Mustang fighter, ironically known as the "Cadillac of the Skies" by GIs in WWII. Packard also built 1350-, 1400-, and 1500-hp V-12 marine engines for American PT boats (each boat used three) and some of Britain's patrol boats. Packard ranked 18th among United States corporations in the value of wartime production contracts.

By the end of the war in Europe, Packard Motor Car Company had produced over 55,000 combat engines. Sales in 1944 were \$455,118,600. By May 6, 1945, Packard had a backlog on war orders of \$568,000,000.

# 1946–1956

By the end of World War II, Packard was in excellent financial condition with assets of around \$33 million, but several management mistakes became more apparent with time. Like other US automobile companies, Packard resumed civilian car production in late 1945, labeling them as 1946 models by modestly updating their 1942 models. As only tooling for the Clipper was at hand, the Senior-series cars were not rescheduled. One version of the story is that the Senior dies were left outdoors to rust and were not usable. Another tale is that Roosevelt gave Stalin the dies for the Senior series, but the ZiS-110 state limousines were a separate design.

The Clipper became outdated as the new envelope bodies started appearing, led by Studebaker and Kaiser-Frazer. Although Packard was in good financial condition as the war ended, they had not sold enough cars to pay the cost of tooling for the 1941 design. While most automakers were able to introduce new vehicles for 1948 and 1949, Packard could not until 1951. The company updated cars by adding new sheet metal to the existing body (which added 200 lb (91 kg) of curb weight). Six-cylinder cars were discontinued for the U.S. market, and a convertible was added. These new designs hid their relationship with the Clipper. Even that name was dropped for a while.

The design chosen was a "bathtub" type, commonly called ponton. While this was considered futuristic during the war and the concept was taken further with the 1949 Nash, and survived for decades in the Saab 92–96 in Europe, the 1948–1950 Packard styling was polarizing. To some, it was sleek and blended classic with modern. Others nicknamed it the "pregnant elephant". Test driver for *Modern Mechanix*, Tom McCahill, referred to the newly designed Packard as "a goat" and "a dowager in a Queen Mary hat" in the January 1948 issue. Packard sold 2,000 vehicles in 1948 and a total of 116,000 of the 1949 models. In the early post-WWII years, the demand for new cars was extremely high, and nearly any vehicle would sell. Attempting to maintain strong sales beyond this point would prove more problematic.

Cadillac's new 1948 cars had sleek, aircraft-inspired styling that immediately made Packard's "bathtub" styling seem old-fashioned. Cadillac also debuted a brand-new OHV V8 engine in 1949 whereas Packard's lack of a modern engine became an increasing liability.

Packard outsold Cadillac until circa 1950; most sales were the midrange volume models. During this time, Cadillac was among the earliest US makers to offer an automatic transmission (the Hydramatic in 1941). Packard caught up with the Ultramatic, offered on top models in 1949 and all models from 1950 onward, but its perceived market reputation now had it as a competitor to Buick.

Designed and built by Packard, the Ultramatic featured a lockup torque converter with two speeds. Early Ultramatics normally operated only in "high", with "low" having to be selected manually. Beginning in late 1954, it could be set to operate only in "high" or to start in "low" and automatically shift into "high". "High" was intended for normal driving and "Low" was mainly for navigating hills.

The Ultramatic made Packard the only American automotive manufacturer other than GM to develop an automatic transmission completely in-house. Ford had chosen to outsource their design to Borg-Warner (Ford had attempted to purchase Ultramatics from Packard to install in Lincolns, but bought Hydramatics until Lincoln developed its own automatic transmission a few years later). Ultramatic did not compare to GM's Hydramatic for smoothness of shifting, acceleration, or reliability. The resources spent on Ultramatic deprived Packard of the opportunity to develop a modern V8 engine. Also, when a new body style was added in addition to standard sedans, coupes, and convertibles, Packard introduced a station wagon instead of a two-door hardtop in response to Cadillac's Coupe DeVille. The Station Sedan, a wagon-like body that was mostly steel, with a good

deal of decorative wood in the back. A total of 3,864 were sold over its three years of production. The Packards of the late 1940s and early 1950s were built with traditional craftsmanship and the best materials, but the combination of the lower-priced Packards leading sales and impacting the prestige of their higher-end models and some questionable marketing decisions, Packard's crown as "king" of the luxury car market was at risk. In 1950, sales dropped to 42,000 cars for the model year. When Packard's president George T. Christopher set the course for an evolutionary styling approach with a facelift for 1951, others wanted a radical new design. Christopher resigned and Packard treasurer Hugh Ferry became president and demanded a new direction. Ferry, who had spent his career at Packard in the accounting department, did not want the job and quickly made it clear that he was serving on a temporary basis until a permanent company president could be found.

The 1951 Packards were redesigned. Designer John Reinhart introduced a high-waisted, more squared-off profile fitting the contemporary styling trends — very different from the traditional flowing design of the postwar era. New styling features included a one-piece windshield, a wrap-around rear window, small tailfins on the long-wheelbase models, a full-width grille (replacing the traditional Packard upright design), and blunt "guideline fenders" with the hood and front fenders at the same height. The 122 in (3,099 mm) wheelbase was used on the 200-series standard and Deluxe two- and four-doors, 250-series Mayfair two-door hardtops (Packard's first), and convertibles. The higher-end 300 and Patrician 400 models were built on a 127 in (3,226 mm) wheelbase. The 200-series models were low-end models and now included a business coupe. The new appearance had similarities to Oldsmobiles, which were more moderately priced and sold in greater numbers.

The 250, 300, and 400/Patricians were Packard's flagship models and comprised the majority of the production for that year. The Patrician was now the premium Packard, replacing the Custom Eight line. Original plans were to equip it with a 356 cu in (5.8 L) engine, but the company decided that sales would not be sufficient to justify producing the larger, more expensive engine, and so the de-bored 327 cu in (5.4 L) (previously the middle engine) was used. While the smaller engine offered nearly equal performance in the new Packards to that of the 356, the move was seen by some as further denigrating Packard's image as a luxury car.

Since 1951 offered little new from other manufacturers, Packard's redesigned lineup sold nearly 101,000 cars. The 1951 Packards were a

mixture of the modern (automatic transmissions) and old (using flathead inline eights when OHV V8 engines were becoming the norm). No domestic car lines had OHV V8s in 1948, but by 1955, every car line offered a version. The Packard inline eight, despite being an older design that lacked the power of Cadillac's engines, produced no vibration. When combined with an Ultramatic transmission, the drivetrain made for a quiet and smooth experience on the road. Packard could not keep up with the horsepower race, which was increasingly moving to high compression, short-stroke engines capable of sustained driving at speeds above 55 mph (89 km/h).

Packard's image was increasingly seen as dowdy and old-fashioned, unappealing to younger customers. Surveys found that nearly 75% of Packard customers had owned previous Packards and few new buyers were attracted to the make. Compounding this problem was the company's geriatric leadership. The Packard board of directors by the early 1950s had an average age of 67. In 1948, Alvin Macauley, born during the Grant Administration, had stepped down as chairman. Hugh Ferry decided to hire an outsider as president. He recruited James Nance from appliance manufacturer Hotpoint. At 52, Nance was more than a decade younger than the youngest Packard executive.

One reason for the aged leadership of Packard was the company's lack of a pension plan for executives (rank-and-file workers had a pension plan per their UAW contract). As a result, Packard executives were reluctant to retire with no source of income other than a Social Security payment, thus blocking younger men from coming to power in the company. One of James Nance's first actions as president was creating a pension plan to induce Packard executives to retire. Nance worked to snag Korean War military contracts and turn around Packard's badly diluted image. He declared that Packard would cease producing mid-priced cars and build only luxury models to compete with Cadillac. As part of this strategy, Nance unveiled a low-production (only 750 made) model for 1953, the Caribbean convertible. Competing directly with the other specialty convertibles marketed that year, (Buick Skylark, Oldsmobile 98 Fiesta, Cadillac Eldorado, and Chrysler New Yorker Deluxe), it was equally well-received and outsold its competition. Nevertheless, overall sales declined in 1953. While the limited-edition luxury models such as the Caribbean convertible and the Patrician 400 Sedan, and the Derham custom formal sedan brought back some prestige from past Packards, the "high pocket" styling introduced two model years prior was no longer drawing buyers for Packer's volume models.

Furthermore, Packard's build quality also began slipping during this period as employee morale decreased.

While American independent manufacturers like Packard did well during the early postwar period, supply had caught up with demand and by the early 1950s they were increasingly challenged as the domestic "Big Three"—General Motors, Ford, and Chrysler battled intensely for sales in the economy, medium-priced, and luxury markets. Those independents that remained in business in the early 1950s, merged. In 1953, Kaiser merged with <u>Willys</u> to become Kaiser-Willys. Nash and Hudson became American Motors Corporation (AMC). The strategy for these mergers included cutting costs and strengthening their sales organizations to meet the intense competition from the Big Three.<sup>[49]</sup>

In 1953–54, Ford and GM waged a brutal sales war, cutting prices and forcing cars on dealers. While this had little effect on either company, it damaged independent automakers. Nash's president George W. Mason thus proposed that the four major independents (Nash, Hudson, Packard, and Studebaker) merge into one firm American Motors Corporation (AMC). Mason held informal discussions with Nance to outline his strategic vision, and an agreement was reached for AMC to buy Packard's Ultramatic transmissions and V8 engines. They were used in 1955 Hudsons and Nashes.

It did not help that Chrysler and Ford waged a campaign of "stealing" Packard dealerships during the early 1950s. Consequently, Packard's dealer network became smaller and more scattered which made it even more difficult to sell Packard vehicles.

Although Korean War defense contracts brought in badly-needed revenue, the war ended in 1953 and the new Secretary of Defense Charles E. Wilson began cutting defense contracts from all automotive manufacturers other than GM, where he had been president.

Packard's last major development was the Torsion-Level <u>suspension</u> by Bill Allison, dubbed *Torsion Level Ride*. The front and rear suspensions on each side of the car side are interconnected by a long torsion bar. This design reduced pitching while allowing for low spring rates, which imbued Packards with a ride that was soft yet controlled. Additionally, this suspension featured an electro-mechanical compensator or "levilizer" that kept the car level regardless of passenger or trunk loading.

# **Studebaker-Packard Corporation**

As of October 1, 1954, Packard Motor Car Company bought the failing Studebaker Corporation to form America's fourth-largest automobile company, but without full knowledge of their circumstances or consideration of the financial implications. Studebaker-Packard's Nance refused to consider merging with AMC unless he could take the top command position (Mason and Nance were former competitors as heads of the Kelvinator and Hotpoint appliance companies, respectively), but Mason's grand vision of a Big Four American auto industry ended on October 8, 1954, with his sudden death from acute pancreatitis and pneumonia.

A week after the death of Mason, the new president of AMC, George W. Romney, announced "there are no mergers under way either directly or indirectly".<sup>[53]</sup> Romney continued with Mason's commitment to buy components from SPC. Although Mason and Nance had previously agreed that SPC would purchase parts from AMC, it did not do so. Packard's engines and transmissions were comparatively expensive, so AMC began development of its own V8 engine, and replaced the outsourced unit by mid-1956.<sup>[54]</sup> Although Nash and Hudson merged, the four-way merger Mason had hoped for, which would have joined Nash, Hudson, Studebaker, and Packard, did not materialize. The S-P marriage (really a Packard buyout) proved to be a crippling mistake. Although Packard was in fair financial condition, Studebaker was not, struggling with high overhead and production costs and needing the impossible figure of 250,000 cars annually to break even. Due diligence was placed behind "merger fever", and the deal was rushed. It became clear after the merger that Studebaker's deteriorating financial situation put Packard's survival at risk.

Nance had hoped for a total redesign in 1954, but the necessary time and money were lacking. Packard that year (total production 89,796) comprised the bread-and-butter Clipper line (the 250 series was dropped), Mayfair hardtop coupes and convertibles, and a new entry-level long-wheelbase sedan named Cavalier. Among the Clippers was a novelty pillared coupe, the Sportster, styled to resemble a hardtop.

With time and money lacking, 1954 styling was unchanged except for modified headlights and taillights, essentially trim items. A new hardtop named Pacific was added to the flagship Patrician series and all higher-end Packards featured a bored-out 359 cu in (5.9 L) engine. Air conditioning became available for the first time since 1942 although Packard introduced air conditioning in the 1930s. Clippers (which comprised over 80% of

production) became available in a hardtop model, Super Panama, but sales fell to 31,000 cars.

The new model Nance hoped for was delayed until 1955, partially because of Packard's merger with Studebaker. Packard stylist Dick Teague was called upon by Nance to design the 1955 line, and to Teague's credit, the 1955 Packard was well received. Not only was the body completely updated and modernized, but the suspension was new, with torsion bars front and rear, along with an electric control that kept the car level regardless of load or road conditions. Along with the new design was Packard's new overheadvalve <u>V8</u>, displacing 352 cu in (5.8 L), replacing the straight-eight that had been used for decades. Packard offered a variety of power, comfort, and convenience features, such as power steering and brakes as well as electric window lifts. Air conditioning was available on all car makes by the mid-1950s, but it was installed on only a handful of cars in 1955 and 1956 despite Packard's status as a luxury car. Model year sales only climbed back to 55,000 units in 1955, including Clipper, in what was a strong year across the industry.

As the 1955 models went into production, an old problem flared up. Back in 1941, Packard had outsourced its bodies to Briggs Manufacturing Company. Briggs founder Walter Briggs had died in early 1952 and his family decided to sell the company to pay estate taxes. Chrysler promptly purchased Briggs and notified Packard that they would cease supplying bodies after Packard's contract with Briggs expired at the end of 1953. Packard was forced to move body production to an undersized plant on Connor Avenue in Detroit. The facility proved too small and caused endless tie-ups and quality problems. Bad quality control hurt the company's image and caused sales to plummet for 1956, though the problems had largely been resolved by that point. Additionally, a "brain drain" of talent away from Packard was underway, most notably John Z. DeLorean.

For 1956, the Clipper became a separate make, with Clipper Custom and Deluxe models available. Now the Packard-Clipper business model was a mirror to Lincoln-Mercury. "Senior" Packards were built in four body styles, each with a unique model name. Patrician was used for the four-door topof-the-line sedans, Four Hundred for the hardtop coupes, and the Caribbean for the convertible and vinyl-roof two-door hardtop. In the spring of 1956, the Executive was introduced. In a four-door sedan and a two-door hardtop, the Executive was aimed at the buyer who wanted a luxury car but could not justify Packard's pricing. It was an intermediate model using the Packard name and the Senior models' front end, but using the Clipper

platform and rear fenders. This was to some confusion and went against what James Nance had been attempting for several years to accomplish, the separation of the Clipper line from Packard. As late as the cars' introduction to the market was, there was reasoning for in 1957 this car was to be continued. It then became a baseline Packard on the all-new 1957 Senior shell. Clippers would share bodies with Studebaker from 1957.

The new 1955 Packard design did not affect Cadillac's continuing to lead the luxury market segment, followed by Lincoln, Packard, and Imperial. Reliability problems with the automatic transmission and all electrical accessories further eroded the public's opinion of Packard. Sales were good for 1955 compared to the previous year as this was a record year for the automobile industry. Packard's sales fell for 1956 due to the fit and finish of the 1955 models as well as mechanical issues relating to the new engineering features. These defects cost Packard millions in recalls and tarnished its image.

For 1956, Teague kept the basic 1955 design and added more styling touches to the body such as then-fashionable three-toning. Headlamps hooded in a more radical style in the front fenders and a slight shuffling of chrome distinguished the 1956 models. "Electronic Push-button Ultramatic", which located transmission push buttons on a stalk on the steering column, proved troublesome, adding to the car's negative reputation, possibly soon to become an orphan. Model series remained the same, but the V8 was now enlarged to 374 cu in (6.1 L) for the Senior series, the largest in the industry. In the top-of-the-line Caribbean, that engine produced 310 hp (230 kW). Clippers continued to use the 352 engine. There were plans for an all-new 1957 line of Senior Packards based on the show car Predictor. Clippers and Studebakers would also share many inner and outer body panels. (A private presentation of this 1957 new-car program was made to Wall Street's investment bankers at the Waldorf-Astoria Hotel in New York in January 1956.) These models were in many ways far advanced from what would be produced by any other automaker at the time, save Chrysler, which soon felt public wrath for its poor-quality issues after rushing its all-new 1957 lines into production. Nance was dismissed and moved to Ford as the head of the new Mercury-Edsel-Lincoln division. Although Nance tried everything, the company failed to secure funding for retooling, forcing Packard to share Studebaker platforms and body designs. With no funding to retool for the advanced new models envisioned, Studebaker-Packard's fate was sealed. The large Packard was effectively dead in an executive decision to kill "the car we could not afford to lose". The last fully Packarddesigned vehicle, a Patrician four-door sedan, rolled off the Conner Avenue assembly line on June 25, 1956.

## 1957–1958

In 1957, no more Packards were built in Detroit and the Clipper disappeared as a separate brand name. Instead, a Studebaker President-based car bearing the Packard Clipper nameplate appeared on the market, but sales were slow. Available in just two body styles, Town Sedan (four-door sedan) and Country Sedan (four-door station wagon), they were powered by Studebaker's 289 cu in (4.7 L) V8 with a McCulloch supercharger, delivering the same 275 hp (205 kW) as the 1956 Clipper Custom, although at higher revolutions. Borrowing design cues from the 1956 Clipper (visual in the grille and dash), with wheel covers, tail lamps, and dials from 1956 along with the Packard cormorant hood mascot and trunk chrome trim from 1955 senior Packards, front bumpers, and Dagmars from the 1956 model, the 1957 Packard Clipper was much more than a badge-engineered Studebaker—but also far from a Patrician. Had the company been able to invest more money to finish the transformation and position the car under a senior line of "true Packards", it might have been a successful Clipper. Standing alone the cars sold in limited numbers; a number of Packard dealers dropped their franchises while customers stayed away, despite huge price discounts, fearful of buying a car that could soon be an orphan. Additionally, there was internal competition from Studebaker-Packard dealers that also carried the Mercedes-Benz brand, to which SP had the USA rights, with the market flooded by inexpensive cars, minor automakers struggled to sell vehicles at loss leader prices to keep up with Ford and GM. There was a general decline in demand for large cars heralded an industry switch to compact cars such as the Studebaker Lark.

The marque suffered further loss of exclusivity and consumers perceived a reduction in quality. Competitors and media critics described the new models as "Packardbakers". The 1958 models were launched with no series name, simply as "Packard". New body styles were introduced, and a two-door hardtop joined the four-door sedan. A new premier model appeared with a sporting profile: the Packard Hawk was based on the Studebaker Golden Hawk and featured a new nose and a fake spare wheel molded in the trunk lid reminiscent of the concurrent Imperial. The 1958 Packards were among the first in the industry to be "facelifted" with plastic parts. The housing for the new dual headlights and the complete fins were fiberglass parts grafted on Studebaker bodies. Very little chrome was on the lower front clip. Designer Duncan McRae managed to include the 1956 Clipper tail

lights for one last time which also included the "Packard Cusps" in the front hood. Added to the front of all but the Hawk were jet nacelles for quad headlights, in a desperate attempt to keep up with late-1950s styling cues. All Packards were equipped with 14 in (36 cm) road wheels to lower the profile. The public reaction was predictable and sales were 2,622 vehicles for the 1958 model year, even being outsold by Checker Motors Corp. The Studebaker factory was older than Packard's Detroit plant, with higher production requirements, which added to dipping sales. A new compact car on which the company staked its survival, the Lark, was a year away, and it also failed to sell in sufficient numbers to keep the marque afloat. Several makes were discontinued around this time:

Packard, Edsel, Hudson, Nash, DeSoto, and Kaiser. Not since the 1930s had so many makes disappeared, and it would not be until the automotive industry crisis of 2008–10 that so many makes would be dropped at the same time again. The last Packard by Studebaker Packard Corporation rolled off the assembly line on July 16, 1958.

### **Concept Packards**

During the 1950s, a number of "dream cars" were built by Packard in an attempt to keep the marque alive in the imaginations of the American carbuying public. Included in this category are the 1952 Pan American that led to the production Caribbean and the Panther (also known as Daytona), based on a 1954 platform. Shortly after the introduction of the Caribbean, Packard showed a prototype hardtop called the Balboa. It featured a reverse-slanted rear window that could be lowered for ventilation, a feature introduced in a production car by Mercury in 1957 and still in production in 1966.

The request was based on the 1955 Four Hundred hardtop, but featured a classic upright Packard fluted grille reminiscent of the prewar models. In addition, the 1957 engineering mule "Black Bess" was built to test new features for a future car. This car had a resemblance to the 1958 Edsel. It featured Packard's return to a vertical grill. This grill was very narrow with the familiar ox-yoke shape that was characteristic for Packard, and with front fenders with dual headlights resembling Chrysler products from that era. The engineering mule Black Bess was destroyed by the company shortly after the Packard plant was shuttered. Of the 10 Requests built, only four were sold off the showroom floor.

Dick Teague also designed the last Packard show car, the Predictor. This hardtop coupe's design followed the lines of the planned 1957 cars. It had many unusual features, among them a roof section that opened either by

opening a door or activating a switch, well ahead of later T-tops. The car had seats that rotated out, allowing the passenger easy access, a feature later used on some Chrysler and GM products. The Predictor also had the opera windows, or portholes, found on concurrent Thunderbirds. Other novel ideas were overhead switches—these were in the production Avanti and a dash design that followed the hood profile, centering dials in the center console area. This feature has only recently been used on production cars. The Predictor survives and is on display at the Studebaker National Museum section of the Center for History in <u>South Bend, Indiana</u>.

### Astral

One unusual prototype, the Studebaker-Packard Astral, was made in 1957 and first unveiled at the South Bend Art Centre on January 12, 1958, and then at the March 1958 Geneva Motor Show. It had a single gyroscopic balanced wheel and the publicity data suggested it could be nuclear powered or have what the designers described as an ionic engine. No working prototype was ever made, nor was it likely that one was ever intended.

The Astral was designed by Edward E. Herrmann, Studebaker-Packard's director of interior design, as a project to give his team experience in working with glass-reinforced plastic. It was shown at Studebaker dealerships before being put into storage. Rediscovered 30 years later, the car was restored and put on display by the Studebaker Museum.

### The End

Studebaker-Packard retired the Packard marque in 1959. In 1962, "Packard" was dropped off the corporation's name at a time when it was introducing the all-new Avanti. The Packard name had been considered for the Avanti, but a less anachronistic image was being sought for the new model. Thus, the Packard name ceased to exist in the American auto industry.

In the late 1950s, Studebaker-Packard was approached by enthusiasts to rebadge the French car maker Facel Vega's Excellence four-door hardtop as a Packard for sale in North America, using stock Packard V8s and identifying trim including red hexagonal wheel covers, cormorant hood ornament, and classic vertical ox-yoke grille. The proposition was rejected when Daimler-Benz threatened to pull out of its 1957 marketing and distribution agreement, which would have cost Studebaker-Packard more in revenue than they could have made from the badge-engineered Packard. Daimler-Benz had little of its own dealer network at the time and used this agreement to enter and become more established in the American market through SPC's dealer network, and felt this car was a threat to their models.

### **Aborted Revival**

In the late 1990s, Roy Gullickson revived the Packard nameplate by buying the naming rights and logo and developing a Packard Twelve for the 1999 model year. His goal was an annual production of 2,000 cars, but a lack of investment funds stalled that plan indefinitely. The only prototype Twelve made was sold at an auto auction in Plymouth, MI, in July 2014 for \$143,000.

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### Revision May 20, 2025 rev U Studebaker Brothers Manufacturing Company - Studebaker

Studebaker was an American wagon and automobile manufacturer based in South Bend, Indiana, with a building at 1600 Broadway, Times Square, Midtown Manhattan, New York City. Founded in 1852 and incorporated in 1868 as the Studebaker Brothers Manufacturing Company, the firm was originally a coachbuilder, manufacturing wagons, buggies, carriages and harnesses.

Studebaker entered the automotive business in 1902 with electric vehicles and in 1904 with gasoline vehicles, all sold under the name "Studebaker Automobile Company". Until 1911, its automotive division operated in partnership with the Garford Company of Elyria, Ohio, and after 1909 with the E-M-F Company and with the Flanders Automobile Company. The first gasoline automobiles to be fully manufactured by Studebaker were marketed in August 1912. Over the next 50 years, the company established a reputation for quality, durability and reliability.

After an unsuccessful 1954 merger with Packard (the Studebaker-Packard Corporation) and failure to solve chronic postwar cashflow problems, the 'Studebaker Corporation' name was restored in 1962, but the South Bend plant ceased automobile production on December 20, 1963, and the last Studebaker automobile rolled off the Hamilton, Ontario, Canada, assembly line on March 17, 1966. Studebaker continued as an independent manufacturer before merging with Wagner Electric in May 1967 and then Worthington Corporation in February 1968 to form Studebaker-Worthington.

## The five brothers

The five sons were, in order of birth: Henry (1826–1895), Clement (1831– 1901), John Mohler (1833– 1917), Peter Everst (1836–1897) and Jacob Franklin (1844–1887). The boys had five sisters. Photographs of the brothers and their parents are reproduced in the 1918 company history, which was written by Erskine after he became president, in memory of John M., whose portrait appears on the front cover.



# Studebaker automobiles 1897–1966

In 1895, John M. Studebaker's son-in-law Fred Fish urged for development of 'a practical horseless carriage'. When, on Peter Studebaker's death, Fish became chairman of the executive committee in 1897, the firm had an engineer working on a motor vehicle. At first, Studebaker opted for electric (battery-powered) over gasolinepropulsion. While manufacturing its own Studebaker Electric vehicles from 1902 to 1911, the company entered into body-manufacturing and distribution agreements with two makers of gasoline-powered vehicles, Garford of Elyria, Ohio, and the Everitt-Metzger-Flanders (E-M-F) Company of Detroit and Walkerville, Ontario. Studebaker began making gasoline-engined cars in partnership with Garford in 1904.

# Studebaker marque established in 1911

In 1910, it was decided to refinance and incorporate as the Studebaker Corporation, which was concluded on February 14, 1911, under New Jersey laws. The company discontinued making electric vehicles that same year. The financing was handled by Lehman Brothers and Goldman Sachs who provided board representatives including Henry Goldman whose contribution was especially esteemed.

After taking over E-M-F's Detroit facilities, Studebaker sought to remedy customer dissatisfaction complaints by paying mechanics to visit each disgruntled owner and replace defective parts in their vehicles, at a total cost of <u>US\$1</u> million (\$15,696,013 in 2024 dollars). The worst problem was rear-axle failure. Hendry comments that the frenzied testing resulted in Studebaker's aim to design 'for life'—and the consequent emergence of "a series of really rugged cars... the famous Big Six and Special Six" listed at \$2,350 (\$36,886 in 2024 dollars). From that time, Studebaker's own marque was put on all new automobiles produced at the former E-M-F facilities as an assurance that the vehicles were well built.

In 1913, the company experienced the first major labor strike in the automotive industry, the 1913 Studebaker strike.

# **Engineering advances from WWI**

The corporation benefited from enormous orders cabled by the British government at the outbreak of World War I. They included 3,000 transport wagons, 20,000 sets of artillery harness, 60,000 artillery saddles, and ambulances, as well as hundreds of cars purchased through the London office. Similar orders were received from the governments of France and Russia.

The 1913 six-cylinder models were the first cars to employ the important advancement of monobloc engine casting which became associated with a production-economy drive in the years of the war. At that time, a 28-yearold university graduate engineer, Fred M. Zeder, was appointed chief engineer. He was the first of a trio of brilliant technicians, with Owen R. Skelton and Carl Breer, who launched the successful 1918 models, and were known as "The Three Musketeers". They left in 1920 to form a consultancy, later to become the nucleus of Chrysler Engineering. The replacement chief engineer was Guy P. Henry, who introduced molybdenum steel, an improved clutch design, and presided over the six-cylinders-only policy favored by new president Albert Russel Erskine, who replaced Fred Fish in July 1915.

### First auto proving ground

In 1925, the corporation's most successful distributor and dealer Paul G. Hoffman came to South Bend as vice president in charge of sales. In 1926, Studebaker became the first automobile manufacturer in the United States to open a controlled outdoor proving ground on which, in 1937, would be planted 5,000 pine trees in a pattern that spelled "STUDEBAKER" when viewed from the air. Also in 1926, the last of the Detroit plant was moved to South Bend under the control of Harold S Vance, vice president in charge of production and engineering. That year, a new small car, the Erskine Six was launched in Paris, resulting in 26,000 sales abroad and many more in America. By 1929, the sales list had been expanded to 50 models and business was so good that 90% of earnings were being paid out as dividends to shareholders in a highly competitive environment. However, the end of that year ushered in the Great Depression that resulted in many layoffs and massive national unemployment for several years.

## Facilities in the 1920s

Studebaker's total plant area in Indiana was 225 acres (0.91 km<sup>2</sup>), spread over three locations, with buildings occupying 7.5 million square feet of floor space. Annual production capacity was 180,000 cars, requiring 23,000 employees.

The original South Bend vehicle plant continued to be used for small forgings, springs, and making some body parts. Separate buildings totaling over one million square feet were added in 1922–1923 for the Light, Special, and Big Six models. At any one time, 5,200 bodies were in process. South Bend's Plant 2 made chassis for the Light Six and had a foundry of 575,000 sq ft (53,400 m<sup>2</sup>), producing 600 tons of castings daily.

Plant 3 at Detroit made complete chassis for Special and Big Six models in over 750,000 sq ft (70,000 m<sup>2</sup>) of floor space and was located between Clark Avenue and Scotten Avenue south of Fort Street. Plant 5 was the service parts store and shipping facility, plus the executive offices of various technical departments. The Detroit facilities were moved to South Bend in 1926, except that the Piquette Avenue Plant (Plant 10) was retained for assembly of the Erskine between 1927 and 1929 and the Rockne (1931-1933). Plant 7 was at Walkerville, Ontario, Canada, where complete cars were assembled from components that had been shipped from South Bend and Detroit factories or locally made in Canada, and is in close proximity to the current Ford Windsor Engine Factory. Output was designated for the Canadian (left-hand drive) and British Empire (right-hand drive) trade. By locating it there, Studebaker could advertise the cars as "British-built" and qualify for reduced tariffs. This manufacturing facility had been acquired from E-M-F in 1910 (see above). By 1929, it had been the subject of \$1.25 million investment and was providing employment that supported 500 families.

### Impact of the 1930s depression

Few industrialists were prepared for the Wall Street Crash of October 1929. Though Studebaker's production and sales had been booming, the market collapsed and plans were laid for a new, small, low-cost car, the Rockne. However, times were too bad to sell even inexpensive cars. Within a year, the firm was cutting wages and laying off workers. Company president Albert Russel Erskine maintained faith in the Rockne and rashly had the directors declare huge dividends in 1930 and 1931. He also acquired 95% of the White Motor Company's stock at an inflated price and in cash. By 1933, the banks were owed \$6 million, (\$145,742,931 in 2024 dollars) though current assets exceeded that figure. On March 18, 1933, Studebaker entered receivership. Erskine was pushed out of the presidency in favor of more cost-conscious managers. Erskine committed suicide on July 1, 1933, leaving successors Harold Vance and Paul Hoffman to deal with the problems.

By December 1933, the company was back in profit with \$5.75 million working capital and 224 new Studebaker dealers, while the purchase of White was cancelled. With the substantial aid of Lehman Brothers, full refinancing and reorganization was achieved on March 9, 1935. A new car was put on the drawing boards under chief engineer Delmar "Barney" Roos—the Champion. Its final styling was designed by Virgil Exner and Raymond Loewy. The Champion doubled the company's previousyear sales when it was introduced in 1939.

# World War II

Studebaker prepared well in advance for the anticipated postwar market and launched the slogan "First by far with a post-war car". This advertising premise was substantiated by Virgil Exner's designs, notably the 1947 Studebaker Starlight coupé, which introduced innovative styling features that influenced later cars, including the flatback "trunk" instead of the tapered look of the time, and a wrap-around rear window. For 1950 and 1951, the Champion and Commander adopted a polarizing appearance from Exner's concepts, and were applied to the 1950 Studebaker Starlight coupe. The new trunk design prompted a running joke that one could not tell if the car was coming or going, and appeared to be influenced by the Lockheed P-38 Lightning, particularly by the shortened fuselage with wrap around canopy. During the war the Studebaker Chippewa Factory was the primary location for aircraft engines used in the Boeing B-17 Flying Fortress and the marketing department attempted to evoke a reference to their contribution to the war effort.

## Industry price war brings on crisis

Studebaker's strong postwar management team including president Paul G Hoffman and Roy Cole (vice president, engineering) had left by 1949, and was replaced by more cautious executives who failed to meet the competitive challenge brought on by Henry Ford II and his Whiz Kids. Massive discounting in a price war between Ford and General Motors, which began with Ford's massive increase in production in the spring of 1953 part of Ford's postwar expansion program aimed at restoring it to the position of the largest car maker which GM had held since 1931could not be equaled by the independent carmakers, for whom the only hope was seen as a merger of Studebaker, Packard, Hudson, and Nash into a fourth giant combine after Chrysler. This had been unsuccessfully attempted by George W. Mason. In this scheme, Studebaker had the disadvantage that its South Bend location would make consolidation difficult. Its labor costs were also the highest in the industry.

# **Merger with Packard**

Ballooning labor costs (the company had never had an official United Auto Workers (UAW) strike and Studebaker workers and retirees were among the highest paid in the industry), quality control issues, and the new-car sales war between Ford and General Motors in the early 1950s wrought havoc on

Studebaker's balance sheet. Professional financial managers stressed shortterm earnings rather than long-term vision. Momentum was sufficient to keep going for another 10 years, but stiff competition and price-cutting by the Big Three doomed the enterprise.

From 1950 Studebaker declined rapidly, and by 1954 was losing money. It negotiated a strategic takeover by Packard, a smaller but less financially troubled car manufacturer. However, the cash position was worse than it had led Packard to believe, and by 1956, the company (renamed Studebaker-Packard Corporation and under the guidance of CEO James J. Nance) was nearly bankrupt, though it continued to make and market both Studebaker and Packard cars until 1958. The "Packard" element was retained until 1962, when the name reverted to "Studebaker Corporation"

### **Contract with Curtiss-Wright**

A three-year management contract was made by CEO Nance with aircraft maker Curtiss-Wright in 1956 with the aim of improving finances due to Studebaker's experience building aircraft engines during the war and military grade trucks. C-W's president, Roy T. Hurley, attempted to reduce labor costs. Under C-W's guidance, Studebaker-Packard also sold the old Detroit Packard plant and returned the then-new Packard plant on Conner Avenue (where Packard production had moved in 1954, at the same time Packard took its body-making operations in house after its longtime body supplier, Briggs Manufacturing Company, was acquired by Chrysler in late 1953) to its lessor, Chrysler. The company became the American importer for Mercedes-Benz, Auto Union, and DKW automobiles and many Studebaker dealers sold those brands, as well. C-W gained the use of idle car plants and tax relief on their aircraft profits while Studebaker-Packard received further working capital to continue car production.

### Last automobiles produced

The automobiles that came after the diversification process began, including the redesigned compact Lark (1959) and the Avanti sports car (1962), were based on old chassis and engine designs. The Lark, in particular, was based on existing parts to the degree that it even used the central body section of the company's 1953–58 cars, but was a clever enough design to be popular in its first year, selling over 130,000 units and delivering a \$28.6 million profit to the automaker (\$308,494,749 in 2024 dollars). "S-P rose from 56,920 units in 1958 to 153,844 in 1959."

However, Lark sales began to drop precipitously after the Big Three manufacturers introduced their own compact models in 1960, and the situation became critical once the so-called "senior compacts" debuted for 1961. The Lark had provided a temporary reprieve, but nothing proved enough to stop the financial bleeding.

A labor strike occurred at the South Bend plant starting on January 1, 1962, and lasting 38 days. The strike came to an end after an agreement was reached between company president Sherwood H. Egbert and Walter P. Reuther, president of the UAW. Despite a sales uptick in 1962, continuing media reports that Studebaker was about to leave the auto business became a self-fulfilling prophecy as buyers shied away from the company's products for fear of being stuck with an "orphan". NBC reporter Chet Huntley made a television program called "Studebaker – Fight for Survival" which aired on May 18, 1962. By 1963, all of the company's automobiles and trucks were selling poorly.

### Exit from auto business - Closure of South Bend plant, 1963

After insufficient initial sales of the 1964 models and the ousting of president Sherwood Egbert, on December 9, 1963, the company announced the closure of the aging South Bend plant. The last Larks and Hawks were assembled on December 20, and the last Avanti was assembled on December 26. To fulfill government contracts, production of military trucks and Zip Vans for the United States Postal Service continued into early 1964. The engine foundry remained open until the union contract expired in May 1964. The supply of engines produced in the first half of 1964 supported Zip Van assembly until the government contract was fulfilled, and automobile production at the Canadian plant until the end of the 1964 model year. The Avanti model name, tooling, and plant space were sold off to Leo Newman and Nate Altman, a longtime South Bend Studebaker-Packard dealership. They revived the car in 1965 under the brand name "Avanti II". (See main article Avanti (car).) They likewise purchased the rights and tooling for Studebaker's trucks, along with the company's vast stock of parts and accessories. The plant, alongside Studebaker's General Products Division, was bought by Kaiser Jeep Corporation who used it to produce military vehicles. That unit formed the nucleus for what would later become AM General Corporation, which today is the world's largest producer of tactical wheeled vehicles. Nevertheless, as Newman and Altman decided not to progress with any Studebaker truck production, the tooling was then sold off again to Kaiser Jeep in late 1965, which continued producing parts for Studebaker trucks for a few more years. Some '1965' model Champ

trucks were built in South America using completely knocked-down kits and left-over parts. These models used a different grille from all previous Champ models.

The closure of the South Bend plant hit the community particularly hard, since Studebaker was the largest employer in St. Joseph County, Indiana. Nearly a quarter of the South Bend work force was African-American.<sup>[</sup>

### **Closure of Hamilton plant, 1966**

Limited automotive production was consolidated at the company's last remaining production facility in Hamilton, Ontario, which had always been profitable and where Studebaker produced cars until March 1966 under the leadership of Gordon Grundy. It was projected that the Canadian operation could break even on production of about 20,000 cars a year, and Studebaker's announced goal was 30,000-40,000 1965 models. While 1965 production was just shy of the 20,000 figure, the company's directors felt that the small profits were not enough to justify continued investment. Rejecting Grundy's request for funds to tool up for 1967 models, Studebaker left the automobile business on March 17, 1966, after an announcement on March 4. A turquoise and white Cruiser sedan was the last of fewer than 9,000 1966 models manufactured (of which 2,045 were built in the 1966 calendar year). In reality, the move to Canada had been a tactic by which production could be slowly wound down and remaining dealer franchise obligations honored. The 1965 and 1966 Studebaker cars used "McKinnon" engines sourced from General Motors Canada Limited, which were based on Chevrolet's 230-cubic-inch six-cylinder and 283 cubic-inch V8 engines when Studebaker-built engines were no longer available.

The closure adversely affected not only the plant's 700 employees, who had developed a sense of collegiality around group benefits such as employee parties and day trips, but the city of Hamilton as a whole; Studebaker had been Hamilton's 10th-largest employer.

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# **Charles William Nash - Nash Motors**

Charles Williams Nash (28 January 1864 – 6 June 1948) was an American automobile entrepreneur who served as an executive in the automotive industry. He played a significant role in building up General Motors as its fifth president. In 1916, he bought Thomas B. Jeffery Company, makers of the popular Rambler automobile, and renamed it Nash Motors. The resulting firm played an independent role in an automobile industry increasingly dominated by the Big Three: General Motors, Ford, and Chrysler.

Nash's profits came from focusing on one welldesigned car in the upper-medium price range. He bought several distressed companies in Wisconsin,



merging them and installing advanced managerial accounting procedures while cutting costs and focusing on long-term growth. He retired as president in 1932, but remained chairman of the board. He facilitated the merger in 1937 with Kelvinator, a manufacturer of refrigerators, home appliances, and commercial refrigeration.

## **Early life**

Nash was born to a poor farming family in Cortland, Illinois, on what is now Route 38 — Lincoln Highway. His mother was Anna E. "Annie" Cadwell (1829–1909), who married David L. Nash. Other Nash siblings included Mazovia (b. 1862), George C. (b. 1866), and Laura W. (b. 1868).

Charles' parents separated when he was six years old and abandoned him. As a result of a court order, he worked as a farmhand in Michigan as an indentured servant under an agreement that was to last until he was 21. Nash had only three months of schooling per year while he was "bound out" to perform farm chores.

At age 12, Nash ran away and became a farmhand, first in Grand Blanc, Michigan, for \$8 per month, then for Alexander McFarland in Mount Morris, Michigan, for \$12 per month. On McFarland's farm, he learned the carpentry trade from John Shelben and formed the "Adams & Nash" concern to press hay.

While pressing hay on the Halleck farm, he met his future wife, Jessie Halleck, and married her on April 23, 1884. They moved to Flint, Michigan,

due to Jessie's poor health. In 1890 was hired by William C. Durant of the Flint Road Cart Company, which later became the Durant-Dort Carriage Company.

# **Automobile industry**

Durant hired Nash in 1890 for \$1 per day as an upholstery stuffer. Within six months, he was promoted to superintendent of the factory. Within ten years, Nash became vice president and general manager of the Durant-Dort Carriage Company. Nash introduced the straight-line belt conveyor into the assembly of carriages. In 1897, Nash had a chance to drive an early automobile and immediately became interested in its commercial possibilities.

## **General Motors**

By 1910, the chief business of Durant-Dort Carriage Company was building automobile bodies for the Buick unit of General Motors, which was founded in 1908 by Durant, who had bought Buick in 1904. Durant found himself short of both capital and skilled management.

Durant brought in Nash to Buick to oversee production. Durant was not concerned that Nash did not have any automotive industry experience; his expertise was in dealing with people and also how to organize an efficient production line. James J. Storrow followed the recommendation and appointed Nash as vice-president of Buick on 13 December 1910.

Nash was searching for an expert in day-to-day manufacturing operations so he could focus more on sales, supplier relations, and logistics. In 1912, Nash hired Walter P. Chrysler from the American Locomotive Company to be Buick's works manager.

In late 1912, Durant was fired by the General Motors board, and on November 19, Nash was elected as the fifth president of the company because he had earned the trust of the bankers who controlled the board of directors.<sup>[8]</sup> Durant had acquired numerous automakers without analyzing their contribution to the product mix and some like Elmore, Cartercar, Reliance Motor Truck, Welch Motor Car, were money-losing operations that left the company financially overextended; thus, there was concern if it could even survive another five years.

Under Nash's leadership, General Motors made immense gains in profits earned and in the number of vehicles produced.<sup>[8]</sup> Nash focused on making GM more efficient by eliminating unprofitable products and streamlining manufacturing. He arranged for GM to purchase 51% of axle maker Weston-

Mott. Cost-cutting and higher sales were his top priorities. There was tight control of inventories and cash at the corporate level, as well as changes designed to maximize production at each factory.

Nash had restored GM to organizational stability and financial health. This was reflected in 1914 profits at \$7.2 million and doubling for 1915 as well as again doubling for 1916, with the automaker taking in nearly \$29 million.

His strategy of consolidating into large units paid off: he combined three different truck operations into one and merged several parts-making operations. Keen to build up international markets, he set up the General Motors Export Company to handle global sales. He also moved GM's general offices from New York to Detroit, created a new purchasing office, and set up a new accounting office with standardized accounting procedures. However, Nash was reluctant to pay dividends to shareholders

By late 1915 and early 1916, Billy Durant attempted to reassert his control over the company, and Nash was caught in the power struggle between Durant and bankers. By May 1916, Durant regained control of the majority of voting stock. He offered Nash a \$1 million annual salary to remain with the automaker. Nash described the salary as "more than a man's worth" and resigned on June 1.

### **Nash Motors**

After he clashed with Durant, Nash resolved never to work for someone else again. Along with former GM executives, James J. Storrow and Walter P. Chrysler, Nash attempted to take over Packard, but the luxury car maker's board of directors demurred.

Nash learned that the heirs of the Jeffery Motor Company of Kenosha, Wisconsin, were anxious to retire. It was best known for its Rambler brand of cars and numerous innovations. Nash bought out the pioneering automaker in August 1916 with a down payment check of half a million dollars and the total deal worth \$5 million (some reports indicate the price was \$9 million). One of the first major investors was Alfred P. Sloan. While Jeffery Motors had total stock of \$3 million, the newly incorporated Nash Motors became a substantial force with capital stock value of almost \$24 million on 29 July 1916.

In 1917, he renamed the company Nash Motors. The 1917 Nash Model 671 was the first automobile to bear the name of the new company's founder. Nils Erik Wahlberg, a former GM engineer, developed new cars and engines for the 1918 model year. Nash Motors became successful almost immediately, with sales totaling 31,008 trucks and cars by 1919.

Nash was able to negotiate procurement contracts with the United States Army during World War I which made the company one of the largest producers of trucks in the nation. In 1918, Nash was appointed to take charge of the engineering and production of aircraft matters for the war effort.

In addition to running his own company, Charles Nash served as president of the luxury automaker LaFayette Motors until Nash Motors bought out the company in 1924.

By 1929, the Big Three automakers (GM, Ford, and Chrysler) controlled 75 percent of the automobile market. Nash Motors was in fourth place, producing 138,000 vehicles in 1928.

Nash focused on producing one high-quality automobile for the uppermedium price range, later adding a smaller, less expensive model, the Ajax. Nash realized he could never compete with the market diversity of the Big Three, so he based his profits on careful management, close attention to costs, and expansion opportunities. Nash was a hands-on executive who concentrated on developing more efficient purchasing and setting up accounting procedures that would specify the source of costs and profits.

Nash acquired other car companies, including Mitchell Motors of Racine in 1923 and LaFayette Motors of Milwaukee in 1924.

During the Great Depression, Nash cars were popular because they provided high quality, durability, and the look of luxury at a relatively low price. The company also saw an opportunity in the luxury car market segment. It introduced the top-of-the-line Ambassador models on a 142 in (3,607 mm) wheelbase in 1932 that soon earned the nickname of "Kenosha Duesenbergs" because of their quality.

During a time when most others were operating in the red or going bankrupt, Nash Motors was only one of two firms in the automobile industry generating a profit.<sup>[18]</sup> In November 1932, Nash was honored by *Sales Management* (now Sales Management and Marketing) magazine as "The Pace Setter for the Auto Industry."

Nash gave up the presidency in 1932, but remained board chairman. Nash wanted George W. Mason as his executive vice president, and to have Mason, he had to buy Kelvinator, a leading manufacturer of refrigerators.

After twenty years of success in running his company, Nash turned it over in 1937 and the merged company was renamed Nash-Kelvinator.

Retirement

Nash retired from his namesake company in 1936 to live in California.<sup>[8]</sup> His health started to fail during his wife's illness and eventual death in 1947. He is quoted as describing himself as "the most common cuss that lived." He died in 1948 at the age of 84 in Beverly Hills, California. Always proud of belonging to the "common people", he left an estate valued at about US\$50 million (approximately US\$630,000,000 in 2023 dollars). Nash was interred in the Forest Lawn Memorial Park Cemetery in Glendale beside his wife.

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# Clement, John, & Peter Studebaker - Studebaker Corp.

Studebaker was an American wagon and automobile manufacturer based in South Bend, Indiana, with a building at 1600 Broadway, Times Square, Midtown Manhattan, New York City. Founded in 1852 and incorporated in 1868 as the Studebaker Brothers Manufacturing Company, the firm was originally a coachbuilder, manufacturing wagons, buggies, carriages and harnesses.

Studebaker entered the automotive business in 1902 with electric vehicles and in 1904 with gasoline vehicles, all sold under the name "Studebaker Automobile Company". Until 1911, its automotive division operated in partnership with the Garford Company of Elyria, Ohio, and after 1909 with the E-M-F Company and with the Flanders Automobile Company. The first gasoline automobiles to be fully manufactured by Studebaker were marketed in August 1912. Over the next 50 years, the company established a reputation for quality, durability and reliability.

After an unsuccessful 1954 merger with Packard (the Studebaker-Packard Corporation) and failure to solve chronic postwar cashflow problems, the 'Studebaker Corporation' name was restored in 1962, but the South Bend plant ceased automobile production on December 20, 1963, and the last Studebaker automobile rolled off the Hamilton, Ontario, Canada, assembly line on March 17, 1966. Studebaker continued as an independent manufacturer before merging with Wagner Electric in May 1967 and then Worthington Corporation in November 1967 to form Studebaker-Worthington.







### **German forebears**

The ancestors of the Studebaker family descend from Solingen, Germany. They arrived in America at the port of Philadelphia on September 1, 1736, on the ship *Harle*, original manuscripts now in the Pennsylvania State Library at Harrisburg. This included Peter Studebaker and his wife Anna Margetha Studebaker, Clement Studebaker (Peter's brother) and his wife, Anna Catherina Studebaker and Heinrich Studebaker (Peter's cousin). In 1918, Albert Russel Erskine, Studebaker Corporation president, wrote the book, "History of the Studebaker Corporation", including the 1918 annual report, "Written for the information of the 3,000 stockholders of the Studebaker Corporation, the 12,000 dealers in its products living throughout the world, its 15,000 employees and numberless friends." This book was verified by lawyers and accountants and all board members and was a legal document. In the same book, Albert Russel Erskin, accurately wrote that Peter Studebaker was the "wagon-maker, which trade later became the foundation of the family fortune and the corporation which now bears his name."

"The tax list of York County, Pennsylvania, in 1798–9 showed among the taxable were Peter Studebaker Sr. and Peter Studebaker Jr. wagon-makers, which trade later became the foundation of the family fortune and the corporation which now bears his name." "John Studebaker, father of the five brothers [that began the Studebaker Corporation] was the son of Peter Studebaker. John Clement Studebaker (son of Clement Studebaker and Sarah Rensel) was born February 8, 1799, Westmorland, PA, and died in 1877 in South Bend, St. Joseph, IN. John Studebaker (1799–1877) moved to Ohio in 1835 with his wife Rebecca (née Mohler) (1802–1887).

### The five brothers



The five Studebaker brothers—founders of the Studebaker Corporation: Left to right, (standing) Peter and Jacob; (seated) Clem, Henry, and John M.

The five sons were, in order of birth: Henry (1826–1895), Clement (1831– 1901), John Mohler (1833–1917), Peter Everst (1836–1897) and Jacob Franklin (1844–1887). The boys had five sisters. Photographs of the brothers and their parents are reproduced in the 1918

company history, which was written by Erskine after he became president, in memory of John M., whose portrait appears on the front cover.

18th-century colonial family business

In 1740 Peter Studebaker built his home on a property known as "Bakers Lookout". (The home still stands in Hagerstown, Maryland.) The first Studebaker wagon factory was built in the same year next to the home. On Bakers Lookout Peter, master of the German Cutler Guild, built the first Studebaker home, the first Studebaker wagon factory where he began forging and tempering steel and seasoning wood in the colonies. Peter Studebaker built the first Studebaker mill and a wagon road. Broadfording Wagon Road was built to run through the property. Peter owned property on both sides of the Conococheague Creek, so he built a bridge over the creek in 1747. Peter began the family business on the Bakers Lookout property where he made his home and built the first Studebaker wagon factory. In this factory, Peter manufactured everything, all necessities including products he made in Solingen, Germany, and naturally wagons. Bakers Lookout, the 1740, 100-acre land patent, Hagerstown, Maryland, was the first of many land patents to be acquired by Peter Studebaker. Peter purchased approximately 1500 acres in what is now known state of Maryland. The home still stands today and is proof of the advanced technology of Peter Studebaker.

In 1747 Peter Studebaker built a road through his owned properties known as Broadfording Wagon Road. The road he built carried heavy traffic to Bakers Lookout's wagon and forging services that were instrumental to expand the west. The Maryland Historical Trust WA-I-306 writes 04/03/2001, that this road was "One of Washington County's earliest thoroughfares, Broadfording (Wagon) Road was already in existence in 1747." The wagon transportation industry boomed. On the property,

Broadfording Wagon Road built in 1740 by Peter Studebaker, went directly through the property to allow access from the home to the factory and to the mill.

Although Peter Studebaker's life in the colonies was short, less than 18 years, the family business flourished through his descendants and apprentices expanded the vast land holdings enlarging the Studebaker family business and its industrious wagon-making region. Peter's trade secrets were passed from father to son, generation to generation. The Studebaker family business plan, purchasing, again and again, vast amounts of land, on which they built industrious farms with mills and wagon making facilities and wagon selling facilities, each identical to the Bakers Lookout situation, industrious farms, much acreage, on which one finds the necessary resources, lumber, iron ore, oil shale and land selected with stream, spring, or river to hydropower factories, mills and equipment. Peter's technology-enabled expansion of the family business through the famous Conestoga and Prairie Schooner wagon designs. Peter's trade was the stepping-stone that expanded the transportation industry. Thomas E. Bonsall, wrote "Much more than the story of a family business; it is also, in microcosm, the story of the industrial development of America." Peter Studebaker died in the mid-1750s.

### End of horse-drawn era

John M. Studebaker had always viewed the automobile as complementary to the horse-drawn wagon, pointing out that the expense of maintaining a car might be beyond the resources of a small farmer. In 1918, when Erskine's history of the firm was published, the annual capacity of the seven Studebaker plants was 100,000 automobiles, 75,000 horse-drawn vehicles, and about \$10,000,000 worth of automobile and vehicle spare parts (\$202,566,372 in 2023 dollars). In the preceding seven years, 466,962 horse-drawn vehicles had been sold, as against 277,035 automobiles, but the trend was all too clear. The regular manufacture of horse-drawn vehicles ended when Erskine ordered the removal of the last wagon gear in 1919. To its range of cars, Studebaker would now add a truck line to replace the horse-drawn wagons. Buses, fire engines, and even small rail locomotive-kits were produced using the same powerful six-cylinder engines.

### Studebaker automobiles 1897–1966

In the beginning

In 1895, John M. Studebaker's son-in-law Fred Fish urged for development of 'a practical horseless carriage'. When, on Peter Studebaker's death, Fish became chairman of the executive committee in 1897, the firm had an engineer working on a motor vehicle. At first, Studebaker opted for electric (battery-powered) over gasoline propulsion. While manufacturing its own Studebaker Electric vehicles from 1902 to 1911, the company entered into body-manufacturing and distribution agreements with two makers of gasoline-powered vehicles, Garford of Elyria, Ohio, and the Everitt-Metzger-Flanders (E-M-F) Company of Detroit and Walkerville, Ontario. Studebaker began making gasoline-engined cars in partnership with Garford in 1904.

Studebaker marque established in 1911

In 1910, it was decided to refinance and incorporate as the Studebaker Corporation, which was concluded on February 14, 1911, under New Jersey laws. The company discontinued making electric vehicles that same year. The financing was handled by Lehman Brothers and Goldman Sachs who provided board representatives including Henry Goldman whose contribution was especially esteemed.

After taking over E-M-F's Detroit facilities, Studebaker sought to remedy customer dissatisfaction complaints by paying mechanics to visit each disgruntled owner and replace defective parts in their vehicles, at a total cost of US\$1 million (\$15,209,302 in 2023 dollars). The worst problem was rear-axle failure. Hendry comments that the frenzied testing resulted in Studebaker's aim to design 'for life'—and the consequent emergence of "a series of really rugged cars... the famous Big Six and Special Six" listed at \$2,350 (\$35,742 in 2023 dollars). From that time, Studebaker's own marque was put on all new automobiles produced at the former E-M-F facilities as an assurance that the vehicles were well built.

In 1913, the company experienced the first major labor strike in the automotive industry, the 1913 Studebaker strike.

**Engineering advances from WWI** 

The corporation benefited from enormous orders cabled by the British government at the outbreak of World War I. They included 3,000 transport wagons, 20,000 sets of artillery harness, 60,000 artillery saddles, and ambulances, as well as hundreds of cars purchased through the London office. Similar orders were received from the governments of France and Russia.

The 1913 six-cylinder models were the first cars to employ the important advancement of monobloc engine casting which became associated with a
production-economy drive in the years of the war. At that time, a 28-yearold university graduate engineer, Fred M. Zeder, was appointed chief engineer. He was the first of a trio of brilliant technicians, with Owen R. Skelton and Carl Breer, who launched the successful 1918 models, and were known as "The Three Musketeers". They left in 1920 to form a consultancy, later to become the nucleus of Chrysler Engineering. The replacement chief engineer was Guy P. Henry, who introduced molybdenum steel, an improved clutch design, and presided over the six-cylinders-only policy favored by new president Albert Russel Erskine, who replaced Fred Fish in July 1915.

First auto proving ground

In 1925, the corporation's most successful distributor and dealer Paul G. Hoffman came to South Bend as vice president in charge of sales. In 1926, Studebaker became the first automobile manufacturer in the United States to open a controlled outdoor proving ground on which, in 1937, would be planted 5,000 pine trees in a pattern that spelled "STUDEBAKER" when viewed from the air. Also in 1926, the last of the Detroit plant was moved to South Bend under the control of Harold S Vance, vice president in charge of production and engineering. That year, a new small car, the Erskine Six was launched in Paris, resulting in 26,000 sales abroad and many more in America. By 1929, the sales list had been expanded to 50 models and business was so good that 90% of earnings were being paid out as dividends to shareholders in a highly competitive environment. However, the end of that year ushered in the Great Depression that resulted in many layoffs and massive national unemployment for several years.

Facilities in the 1920s

Formerly a Studebaker finishing plant, it was sold to the Borden Milk Company in 1937, and now houses the university's finance department.

Studebaker's total plant area in Indiana was 225 acres (0.91 km<sup>2</sup>), spread over three locations, with buildings occupying 7.5 million square feet of floor space. Annual production capacity was 180,000 cars, requiring 23,000 employees.

The original South Bend vehicle plant continued to be used for small forgings, springs, and making some body parts. Separate buildings totaling over one million square feet were added in 1922–1923 for the Light, Special, and Big Six models. At any one time, 5,200 bodies were in process. South Bend's Plant 2 made chassis for the Light Six and had a foundry of 575,000 sq ft (53,400 m<sup>2</sup>), producing 600 tons of castings daily.<sup>[6]:236</sup>

Plant 3 at Detroit made complete chassis for Special and Big Six models in over 750,000 sq ft (70,000 m<sup>2</sup>) of floor space and was located between Clark Avenue and Scotten Avenue south of Fort Street. Plant 5 was the service parts store and shipping facility, plus the executive offices of various technical departments. The Detroit facilities were moved to South Bend in 1926, except that the Piquette Avenue Plant (Plant 10) was retained for assembly of the Erskine between 1927 and 1929 and the Rockne (1931– 1933).

Plant 7 was at Walkerville, Ontario, Canada, where complete cars were assembled from components that had been shipped from South Bend and Detroit factories or locally made in Canada, and is in close proximity to the current Ford Windsor Engine Factory. Output was designated for the Canadian (left-hand drive) and British Empire (right-hand drive) trade. By locating it there, Studebaker could advertise the cars as "British-built" and qualify for reduced tariffs. This manufacturing facility had been acquired from E-M-F in 1910. By 1929, it had been the subject of \$1.25 million investment and was providing employment that supported 500 families.

## Impact of the 1930s depression

Few industrialists were prepared for the Wall Street Crash of October 1929. Though Studebaker's production and sales had been booming, the market collapsed and plans were laid for a new, small, low-cost car—the Rockne. However, times were too bad to sell even inexpensive cars. Within a year, the firm was cutting wages and laying off workers. Company president Albert Russel Erskine maintained faith in the Rockne and rashly had the directors declare huge dividends in 1930 and 1931. He also acquired 95% of the White Motor Company's stock at an inflated price and in cash. By 1933, the banks were owed \$6 million, (\$141,223,650 in 2023 dollars) though current assets exceeded that figure. On March 18, 1933, Studebaker entered receivership. Erskine was pushed out of the presidency in favor of more cost-conscious managers. Erskine committed suicide on July 1, 1933, leaving successors Harold Vance and Paul Hoffman to deal with the problems.

By December 1933, the company was back in profit with \$5.75 million working capital and 224 new Studebaker dealers, while the purchase of White was cancelled. With the substantial aid of Lehman Brothers, full refinancing and reorganization was achieved on March 9, 1935. A new car was put on the drawing boards under chief engineer Delmar "Barney" Roos—the Champion. Its final styling was designed by Virgil Exner and Raymond Loewy. The Champion doubled the company's previousyear sales when it was introduced in 1939.

## World War II

From the 1920s to the 1930s, the South Bend company had originated many style and engineering milestones, including the Light Four, Light Six, Special Six, Big Six models, the Dictator, the record-breaking Commander and President, followed by the 1939 Champion. During World War II, Studebaker produced the Studebaker US6 truck in great quantity and the unique M29 Weasel cargo and personnel carrier. Studebaker ranked 28th among United States corporations in the value of wartime production contracts. An assembly plant in California, Studebaker Pacific Corporation, built engine assemblies and nacelles for B-17s and PV-2 Harpoons. After cessation of hostilities, Studebaker returned to building automobiles.

## **Post-WWII styling**

Studebaker prepared well in advance for the anticipated postwar market and launched the slogan "First by far with a post-war car". This advertising premise was substantiated by Virgil Exner's designs, notably the 1947 Studebaker Starlight coupé, which introduced innovative styling features that influenced later cars, including the flatback "trunk" instead of the tapered look of the time, and a wrap-around rear window. For 1950 and 1951, the Champion and Commander adopted a polarizing appearance from Exner's concepts, and were applied to the 1950 Studebaker Starlight coupe. The new trunk design prompted a running joke that one could not tell if the car was coming or going, and appeared to be influenced by the Lockheed P-38 Lightning, particularly by the shortened fuselage with wrap around canopy. During the war the Studebaker Chippewa Factory was the primary location for aircraft engines used in the Boeing B-17 Flying Fortress and the marketing department attempted to evoke a reference to their contribution to the war effort.

## Industry price war brings on crisis

Studebaker's strong postwar management team including president Paul G Hoffman and Roy Cole (vice president, engineering) had left by 1949 and was replaced by more cautious executives who failed to meet the competitive challenge brought on by Henry Ford II and his Whiz Kids. Massive discounting in a price war between Ford and General Motors, which began with Ford's massive increase in production in the spring of 1953—part of Ford's postwar expansion program aimed at restoring it to the position of the largest car maker which GM had held since 1931—could not be equaled

by the independent carmakers, for whom the only hope was seen as a merger of Studebaker, Packard, Hudson, and Nash into a fourth giant combine after Chrysler. This had been unsuccessfully attempted by George W. Mason. In this scheme, Studebaker had the disadvantage that its South Bend location would make consolidation difficult. Its labor costs were also the highest in the industry.

## **Merger with Packard**

Ballooning labor costs (the company had never had an official United Auto Workers (UAW) strike and Studebaker workers and retirees were among the highest paid in the industry), quality control issues, and the new-car sales war between Ford and General Motors in the early 1950s wrought havoc on Studebaker's balance sheet. Professional financial managers stressed shortterm earnings rather than long-term vision. Momentum was sufficient to keep going for another 10 years, but stiff competition and price-cutting by the Big Three doomed the enterprise.

From 1950 Studebaker declined rapidly, and by 1954 was losing money. It negotiated a strategic takeover by Packard, a smaller but less financially troubled car manufacturer. However, the cash position was worse than it had led Packard to believe, and by 1956, the company (renamed Studebaker-Packard Corporation and under the guidance of CEO James J. Nance) was nearly bankrupt, though it continued to make and market both Studebaker and Packard cars until 1958. The "Packard" element was retained until 1962, when the name reverted to "Studebaker Corporation".

**Contract with Curtiss-Wright** 

A three-year management contract was made by CEO Nance with aircraft maker Curtiss-Wright in 1956 with the aim of improving finances due to Studebaker's experience building aircraft engines during the war and military grade trucks. C-W's president, Roy T. Hurley, attempted to reduce labor costs. Under C-W's guidance, Studebaker-Packard also sold the old Detroit Packard plant and returned the then-new Packard plant on Conner Avenue (where Packard production had moved in 1954, at the same time Packard took its body-making operations in house after its longtime body supplier, Briggs Manufacturing Company, was acquired by Chrysler in late 1953) to its lessor, Chrysler. The company became the American importer for Mercedes-Benz, Auto Union, and DKW automobiles and many Studebaker dealers sold those brands, as well. C-W gained the use of idle

car plants and tax relief on their aircraft profits while Studebaker-Packard received further working capital to continue car production.

## Last automobiles produced

The automobiles that came after the diversification process began, including the redesigned compact Lark (1959) and the Avanti sports car (1962), were based on old chassis and engine designs. The Lark, in particular, was based on existing parts to the degree that it even used the central body section of the company's 1953–58 cars, but was a clever enough design to be popular in its first year, selling over 130,000 units and delivering a \$28.6 million profit to the automaker (\$298,928,767 in 2023 dollars). "S-P rose from 56,920 units in 1958 to 153,844 in 1959."

However, Lark sales began to drop precipitously after the Big Three manufacturers introduced their own compact models in 1960, and the situation became critical once the so-called "senior compacts" debuted for 1961. The Lark had provided a temporary reprieve, but nothing proved enough to stop the financial bleeding.

A labor strike occurred at the South Bend plant starting on January 1, 1962, and lasting 38 days. The strike came to an end after an agreement was reached between company president Sherwood H. Egbert and Walter P. Reuther, president of the UAW. Despite a sales uptick in 1962, continuing media reports that Studebaker was about to leave the auto business became a self-fulfilling prophecy as buyers shied away from the company's products for fear of being stuck with an "orphan". NBC reporter Chet Huntley made a television program called "Studebaker – Fight for Survival" which aired on May 18, 1962. By 1963, all of the company's automobiles and trucks were selling poorly.

Exit from auto business

**Closure of South Bend plant, 1963** 

After insufficient initial sales of the 1964 models and the ousting of president Sherwood Egbert, on December 9, 1963, the company announced the closure of the South Bend plant. The last Larks and Hawks were assembled on December 20, and the last Avanti was assembled on December 26. To fulfill government contracts, production of military trucks and Zip Vans for the United States Postal Service continued into early 1964. The engine foundry remained open until the union contract expired in May 1964. The supply of engines produced in the first half of 1964 supported Zip Van assembly until the government contract was fulfilled, and automobile production at the Canadian plant until the end of the 1964 model year.

The Avanti model name, tooling, and plant space were sold off to Leo Newman and Nate Altman, a longtime South Bend Studebaker-Packard dealership. They revived the car in 1965 under the brand name "Avanti II". They likewise purchased the rights and tooling for Studebaker's trucks, along with the company's vast stock of parts and accessories. The plant, alongside Studebaker's General Products Division, was bought by Kaiser Jeep Corporation who used it to produce military vehicles. That unit formed the nucleus for what would later become AM General Corporation, which today is the world's largest producer of tactical wheeled vehicles. Nevertheless, as Newman and Altman decided not to progress with any Studebaker truck production, the tooling was then sold off again to Kaiser Jeep in late 1965, which continued producing parts for Studebaker trucks for a few more years. Some '1965' model Champ trucks were built in South America using completely knocked-down kits and left-over parts. These models used a different grille from all previous Champ models.

The closure of the South Bend plant hit the community particularly hard, since Studebaker was the largest employer in St. Joseph County, Indiana. Nearly a quarter of the South Bend work force was African-American.

## **Closure of Hamilton plant, 1966**

Limited automotive production was consolidated at the company's last remaining production facility in Hamilton, Ontario, which had always been profitable and where Studebaker produced cars until March 1966 under the leadership of Gordon Grundy. It was projected that the Canadian operation could break even on production of about 20,000 cars a year, and Studebaker's announced goal was 30,000-40,000 1965 models. While 1965 production was just shy of the 20,000 figure, the company's directors felt that the small profits were not enough to justify continued investment. Rejecting Grundy's request for funds to tool up for 1967 models, Studebaker left the automobile business on March 17, 1966, after an announcement on March 4. A turguoise and white Cruiser sedan was the last of fewer than 9,000 1966 models manufactured (of which 2,045 were built in the 1966 calendar year). In reality, the move to Canada had been a tactic by which production could be slowly wound down and remaining dealer franchise obligations honored. The 1965 and 1966 Studebaker cars used "McKinnon" engines sourced from General Motors Canada Limited, which were based on Chevrolet's 230-cubic-inch six-cylinder and 283 cubic-inch V8 engines when Studebaker-built engines were no longer available.

The closure adversely affected not only the plant's 700 employees, who had developed a sense of collegiality around group benefits such as employee

parties and day trips, but the city of Hamilton as a whole; Studebaker had been Hamilton's 10th-largest employer.

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# **Carroll Shelby - Shelby America**

Carroll Hall Shelby (January 11, 1923 – May 10, 2012) was an American automotive designer, racing driver, and entrepreneur.

Best known as a designer for his involvement with the AC Cobra and Mustang for Ford Motor Company, he also developed the Ford GT40 with racing legend Ken Miles, the car that won the 24 Hours of Le Mans in 1966, 1967, 1968, and 1969. As of 2024, it remains the only American-built car to win at Le Mans. His and Miles's efforts were dramatized in the 2019 Oscar-winning film *Ford v Ferrari*.



A few YouTube video interviews with Carroll Shelby:

1. Carroll Shelby: An Interview with the Snake (1-Hour)



2. Carroll Shelby In His Own Words (22 minutes)



3. Carroll Shelby - <u>The Lost Interview, Ford vs Ferrari, Le Mans, GT40, Complete Life</u> <u>History</u> (1-hour 38-minutes)



As a driver, he was a co-driver in winning the 1959 24 Hours of Le Mans driving an Aston Martin DBR1 with Roy Salvadori. He also won the 1960 Sports Car Club of America United States Auto Club Road Racing Sports Car Championship in 1960 by winning the round 1 race at Riverside International Raceway driving a Maserati Tipo 61 "Birdcage", and winning round 2 at Continental Divide Raceways driving a Chevrolet Scarab Mark II.

As an entrepreneur he established Shelby American in 1962 to manufacture and market performance vehicles. His autobiography, *The Carroll Shelby Story*, was published in 1967.

### Revision May 20, 2025 rev U Early life

Carroll Shelby was born on January 11, 1923, to Warren Hall Shelby, a rural mail carrier, and his wife, Eloise Shelby (born Lawrence), in Leesburg, Texas. Shelby suffered from heart valve leakage problems by age 7 and experienced several health-related complications throughout his life. From a young age, Shelby was fascinated with the concept of speed, which led to an interest in cars and airplanes. He moved to Dallas, Texas, at age 7 with his family, and around age 10, he rode his bicycle to dirt tracks nearby to watch races. Eager for a car of his own, at age 15, he was driving and taking care of his father's Ford. Shelby's education as a pilot began in the military in November 1941 at the San Antonio Aviation Cadet Center, later known as Lackland Air Force Base. Before racing and building cars, Shelby was a poultry farmer, which was a livelihood he continued until 1952.

## **Pre-racing**

Shelby honed his driving skills with his Willys automobile while attending Woodrow Wilson High School in Dallas, Texas, graduating in 1940. He later enrolled at The Georgia Institute of Technology in the Aeronautical Engineering program. After enlisting in the United States Army Air Corps, Shelby began pilot training in November 1941. He graduated with the rank of staff sergeant pilot in September 1942 at Ellington Field. In December 1942, he was commissioned as a second lieutenant after undergoing air students' training, later serving in Colorado and Texas as a flight instructor and test pilot in the Beechcraft AT-11 Kansan and Curtiss AT-9 Jeep. He went on to fly the Douglas B-18 Bolo, the North American B-25 Mitchell, the Douglas A-26 Invader, and finally the Boeing B-29 Superfortress at Denver, Colorado, before being discharged following V-J Day.<sup>[14]</sup>

He started his own dump truck business, worked briefly as an oilwell roughneck from 1948 to 1949, and then as a poultry farmer before going bankrupt.

### **Driving career**

Shelby started driving professionally at age 29. Starting out as an amateur, Shelby raced his friend Ed Wilkin's MG TC in January 1952 at the Grand Prairie Naval Air Station drag meet, followed by other races. Then, he raced Charles Brown's Cadillac-Allards at Caddo Mills, Texas. At the end of 1952, Shelby won 4 races, taking home only trophies, not accepting any prize money.<sup>[14]:31-35</sup>

In 1953, Shelby raced Brown's Cad-Allard, followed by Roy Cherryhomes' Cad-Allard, winning 8 or 9 races. Then in 1954, he drove in the Mil Kilometros de la Ciudad de Buenos Aires, sponsored by the Automobile Club of Argentina and the Sports Car Club of America. This is where he met John Wyer, Aston Martin's team manager, who asked Shelby to drive their DBR3 at Sebring. The DBR3 did not finish Sebring in 1954 due to a broken rear axle.

Shelby traveled to Europe in April 1954, where he raced a DBR3 for John Wyer at Aintree, followed by Le Mans. Teaming up with Graham Whitehead, their Aston Martin took fifth at the Thousand Kilometers at Monza on 27 June. He then drove in the 3-car factory team effort at Silverstone on 17 July with Peter Collins and Roy Salvadori, all three cars taking the three top places.

In August 1954, Shelby drove with Donald Healey, and his team. In an Austin-Healey 100S and supercharged 100S, they set Class D National speed records at the Bonneville Salt Flats. Shelby, Healey, Captain G.E.T. Eyston, Mortimer Morris Goodall, and Roy Jackson-Moore set about 70 new records, with Shelby setting 17 on his own.

Shelby was severely injured in a crash while racing an Austin-Healey in the Carrera Panamericana. Though he underwent eight months of operations, he continued to drive in 1955, winning about ten races, and a second-place showing at Sebring driving Allen Guiberson's Ferrari Monza. He then started driving Tony Paravano's Ferraris in August 1955. He won a further 30 races with the Ferrari in 1956, started driving for John Edgar, and opened Carroll Shelby Sports Cars in Dallas.

He drove in the Mount Washington Hillclimb Auto Race in a specially prepared Ferrari 375 GP roadster, to a record run of 10 minutes, 21.8 seconds on his way to victory in 1956. He also set records at Giants Despair Hillclimb, and raced at Brynfan Tyddyn.

He was *Sports Illustrated* magazine's driver of the year in 1956 and 1957.

Racing John Edgar's 4.5-liter Maserati at the Riverside International Raceway in September 1957, he was involved in a crash that caused injuries requiring 72 stitches and plastic surgery for broken bones in his nose and cheekbones. However, he returned in November, winning with the same car at the same course, against Masten Gregory and Dan Gurney.

Shelby joined John Wyer and the Aston Martin team in Europe and drove a DBR3 at the Belgian Sports Car Grand Prix on 18 May 1958, followed by a DBR1 at the Nürburgring 1000 km with co-driver Salvadori. Shelby was

teamed up with Salvadori at Le Mans, but Shelby came down with dysentery and had to be replaced by Stuart Lewis-Evans after a few hours into the race. Shelby then drove a Maserati 250F for Mimo Dei's Scuderia Centro Sud in 3 Grand Prix races to gain Formula 1 and openwheel car experience, including the Portuguese Grand Prix. Shelby finished the year driving John Edgar's 4.5L Maserati in the Tourist Trophy at Nassau.

Shelby and Salvadori started the 1959 sports car season by driving the DBR1/300 at Sebring in March. In June, Shelby drove Wolfgang Seidel's Porsche in the Nürburgring 1000 km. The highlight of his racing career came in June 1959 when he co-drove an Aston Martin DBR1 (with Englishman Roy Salvadori) to victory in the 1959 24 Hours of Le Mans. In September, Shelby drove with Jack Fairman in the Goodwood Tourist Trophy.

The 1959 Grand Prix season saw Shelby driving the Aston Martin DBR4 in the Dutch Grand Prix in May, followed by the British Grand Prix at Aintree in July. Shelby then drove in the Portuguese Grand Prix in August, followed by the Italian Grand Prix in September.

Shelby finished the 1959 racing season driving Casner Motor Racing Division's Birdcage Maserati at the Nassau races in December. In January 1960, he drove Temple Buell's Maserati 250F in the New Zealand Grand Prix, then Camoradi's Porsche in the Cuban Gran Premio Libertad, then their 2.9liter Birdcage Maserati at Sebring. He won the Grand Prix at Riverside driving one of "Lucky" Cassner's Birdcage Maseratis, and then won the Castle Rock race in June, driving a Scarab. He finished the year driving Max Balchowsky's "Old Yeller II" in the Road America, then a Birdcage Maserati in the Pacific Grand Prix and the Los Angeles Times Grand Prix, which was his last race.

According to Shelby, "...winning the Twenty-four Hours was probably the greatest thrill I ever got out of racing. I can think of plenty of other races that carry their quota of thrills for the winner, but when you win this one, it kind of gives you license to go out and tell people you're good, and that often helps get some other deals together."

In 1961, Shelby, along with Pete Brock, opened the Shelby School of High Performance Driving at the Riverside track.

## As constructor

Shelby's visits to "limited-production factories in Europe" caused him to realize that "America was missing a big bet, a winning bet ... the design and production of an all-purpose, all-American sports or grand touring car that you could drive to market and also race during the weekend..." In particular,

Shelby's starting point was putting a 300-brake horsepower V8 on an Austin Healey type chassis, so that the combination weighed less than 2,600 pounds (1,180 kg).

After retiring from driving in October 1960 for health reasons, Shelby opened a high-performance driving school and the Shelby-American performance equipment and customization company in the Los Angeles area. Shelby became interested in the potential of the AC Ace chassis, especially after Bristol Aeroplane Company stopped building automobile engines, and the sales with the Ford Zephyr engine were declining in September 1961. Shelby contacted Charles Hurlock of AC, who agreed to provide the chassis on credit. Dave Evans of Ford Motor Company agreed to provide 221-cubic-inch (3.6-litre) and 260-cubic-inch (4.3-litre) V8 engines with transmissions also on credit. The new car, called the Carroll Shelby Experimental or CSX0001, was marketed as the Shelby AC Cobra, then AC Cobra, and eventually, the Ford Cobra. Production began in March 1962, with 75 cars sold by the end of the year. One hundred cars had been built by April 1963, the first 75 with the 260-cubic-inch engine, followed by a 289-cubic-inch (4.7-litre) engine. The 427 Cobra prototype was built in October 1964.

Shelby started racing his creation in October 1962 at Riverside, with Billy Krause driving the CSX0002. Racing experience from 1963 indicated that further modifications were necessary to make the Cobra competitive with the Ferrari GT cars; in particular, the AC roadster body needed to be replaced with a lower-drag enclosed coupe body for high-speed circuits. The result was the Shelby Daytona Coupe, which took three GT class wins on the 1964 World Sportscar Championship GT circuit, including Le Mans and the Tourist Trophy at Goodwood, plus the Sports Car Club of America's U.S. GT Championship. Then in 1965, Shelby American Cobra won the International Championship for GT Manufacturers.

After success with the Daytona Coupe in 1964, Shelby-American became more heavily involved in Ford's GT40 Sports Prototype racing program, which had experienced disappointing results. Shelby made changes to running gear, particularly transmissions, to improve reliability, and designed their GT40 Mark II variant around Ford's 7.0-litre (427 cu in) engine. In 1966, the Mark II earned Ford the overall Constructors' title in the World Sportscar Championship with their 1-2-3 finish at Le Mans. Ford was also developing a radical new prototype with a lightweight chassis based on aluminum honeycomb panels. Shelby was brought in to finalize the development of the car after the project experienced setbacks in 1966,

which included the death of driver Ken Miles in August. The Mark IV was introduced for the 1967 12 Hours of Sebring and finished in first place. It was prepared for Le Mans and another record-breaking finish. Driver Dan Gurney shook and sprayed champagne on the podium and started a tradition. The Mark IV was Shelby's last prototype racer, as new limits on engine displacement for that class eliminated Ford's engines.

Shelby's early racing successes led to a joint effort of Ford and Shelby-American to produce the Mustang-based Shelby GT350, starting in 1965, then the Shelby GT500, starting in 1967. Shelby produced those cars through 1968, then subsequent cars with the Shelby GT brand were produced in-house by Ford.

After parting with Ford, Shelby moved on to help develop performance cars with divisions of the two other <u>Big 3</u> American companies: Dodge(Chrysler) and Oldsmobile (General Motors).

In the intervening years, Shelby had a series of ventures start and stop relating to the production of "completion" Cobras — cars that were allegedly built using "leftover" parts and frames. In the 1960s, the <u>FIA</u> required entrants (Shelby, Ford, Ferrari, etc.) to produce at least 100 cars for homologated classes of racing. Shelby simply ordered an insufficient number of cars and skipped a large block of Vehicle Identification Numbers; to create the illusion the company had imported large numbers of cars. Decades later in the 1990s, Carroll alleged that he had found the "leftover" frames, and began selling cars that were supposedly finally "completed". After it was discovered, the cars were built from scratch in collaboration with McCluskey, Ltd., they were re-termed "continuation" Cobras. The cars are still built to this day, known as the current CSX4000 series of Cobras.

Shelby was inducted into the International Motorsports Hall of Fame in 1991, the Motorsports Hall of Fame of America in 1992, the Automotive Hall of Fame in 1992, and the Diecast Hall of Fame in 2009. He was also inducted into the SCCA Hall of Fame on March 2, 2013.

In 2003, Ford Motor Co. and Carroll Shelby resumed ties and he became technical advisor to the Ford GT project. In that same year, he formed Carroll Shelby International, Inc., based in Nevada.

Partnership with Dodge

Shelby began working with Dodge at the request of Chrysler Corporation chairman Lee Iacocca. Iacocca had previously been responsible for bringing Shelby to the Ford Mustang. After almost a decade of tuning work, Shelby was brought on board as the "Performance Consultant" on the Dodge Viper Technical Policy Committee made up of Chrysler's executive Bob Lutz, Product Design chief Tom Gale, and Engineering Vice President François Castaing. Shelby's wealth of experience helped make the Viper as light and powerful as possible.

## **Shelby Series 1**

Shelby unveiled the Series 1 roadster at the 1997 Los Angeles Auto Show, with the intention for it to be a modern-day reinterpretation of the original Shelby AC Cobra. The Series 1 used Oldsmobile's 4.0 L *L47 Aurora* V8, which was chosen because it was the selected engine by Indy for that year but was poorly supported by the ailing GM division. Shelby had already built an Aurora-engined sports prototype together with Racefab in 1997, in an attempt to continue his single-make Can-Am series.

The Series 1 is the only car ever produced by Carroll Shelby from a clean sheet of paper, and built from the ground up. All other Shelbys were reengineered models produced by other manufacturers and then modified by Shelby.

Before manufacturing the Series 1, substantial expenses were accrued for the purpose of conducting tests and obtaining certification in order to comply with the 1999 Federal Motor Vehicle Safety Standards. Shelby American built a total of 249 production Series 1 cars as model year 1999 cars.

During production, Venture Corporation purchased Shelby American, Inc. The purchase included the Series 1 model, but not the rights to produce the "Continuation Series" Shelby Cobras. In 2004, after a subsequent bankruptcy by Venture Corporation (unrelated to the acquisition of Shelby American), Carroll Shelby's new company, Shelby Automobiles, Inc., purchased the Series 1 assets for pennies on the dollar. Included in the asset purchase were enough components to produce several more complete Series 1s.

Because the 1999 Federal Motor Vehicle Safety Standards certificate had expired, and the cost to re-certify the car was prohibitive, all Series 1's produced after that date were completed as "component cars" and delivered with no engine or transmission. Those "component car" models built in 2005 are identified with a seven-digit vehicle identification number (VIN) and were designated with a CSX5000 series serial number. The original 249 were production cars with a seventeen-digit VIN.

The Series 1 was produced in both supercharged and normally aspirated versions. Supercharged cars were also outfitted by the factory with larger

brakes and a heavy-duty clutch. Performance is near "supercar" category with a 0 to 60 mph time at 4.1 seconds for the supercharged version. The Series 1 had power steering, power disc brakes, factory air conditioning, power windows, and an AM/FM/CD audio system. The convertible top folded away in a compartment located behind the cockpit. Some component cars were sold as roadsters, with no convertible top.

## **Ford-Shelby projects**

In 2004, a new Ford Shelby Cobra Concept was shown off at U.S. car shows. Built with a retro body mimicking the 1960s Cobras mixed with modern touches, it was based on the Ford GT chassis (reworked for front engine/rear wheel drive) and powered by a 6.4 L V10 engine that produced 605 hp (451 kW). It received overwhelmingly positive press reviews and won the "Best in Show" award at the Detroit International Auto Show.

A coupe version of the Shelby Cobra roadster was introduced the following year in 2005, the Ford Shelby GR-1 concept car. While sporting a completely modern design, it took inspiration from the design of the 1960s Shelby Daytona. The GR-1, like the Cobra, is based on the GT's chassis. Press reviews for the GR-1 were positive. The car was featured on the cover of *Motor Trend* and *Car Magazine*. The Ford Shelby GR-1 was floated as a possibility of taking over the Ford GT's production line after its production came to an end. Neither Shelby concept was built.

In 2005, Carroll Shelby built his very first modern Masterpiece CSM:00001 V6 Shelby Mustang CS6 and #01 V8 to prove to Ford that he could still build high-performance cars. Its V6 produced 380 hp, making it faster than Ford's 300 hp V8. Because Ford thought the CS6 would hurt Ford Mustang V8 sales, Ford told Shelby to go with the 500 hp V8 instead. Shelby first built a V8 modern version look of the Eleanor. Carroll built only one at the Shelby Factory. Later WCC built 4 as kits. Few CS6 Shelbys were also built as kits; consequently, these are among the rarest Shelbys in the world.

At the 2005 New York International Auto Show, Ford introduced the Shelby GT500, the first official collaboration between Shelby and Ford on a Mustang since 1971. It became available in the summer of 2006 as part of the model year 2007 lineup. It was powered by

a supercharged and intercooled Modular 5.4L V8 engine, with four-valvesper-cylinder heads borrowed from the Ford GT, an Eaton M122 Roots-type supercharger and a power output rated by Ford at 500 hp (507 PS; 373 kW) and 480 lb·ft (651 N·m) of torque. It had a Tremec T-6060 6-speed manual transmission, reworked suspension geometry, 18-inch wheels, functional

aerodynamic body kit, and a retro solid rear axle. The GT500 started at an MSRP of \$40,930 for the coupe, and \$45,755 for the convertible. Although Carroll Shelby had no hands-on involvement in the design of the car, he provided Ford and SVT (Special Vehicle Team) input on what would make the car better and convinced Ford to use wider rear tires (from 255 mm wide to 285 mm wide).

Shelby, in cooperation with the Hertz Corporation, produced 500 cars named "Shelby GT-H" in 2006, designed after the Shelby G.T.350H "Rent-a-Racer" from 1966 under a similar partnership.<sup>[32]</sup> This was a special-edition Ford Mustang GT, available for rental from Hertz. A Ford Racing Performance Group FR1 Power Pack increased the GT's 4.6 L V8 engine to 325 hp (242 kW). The cars included a custom Shelby hood and black and gold body styling, incorporating a gold-plated "Hertz" nameplate on both sides.

A consumer version of the Shelby GT-H was available from Shelby through Ford dealers, called the Shelby GT. There were 5,682 vehicles for 2007 and 2,300 for 2008 were built. They had the same engine as the GT-H, but more suspension, appearance, and drivetrain upgrades and were available with either manual or automatic transmission. White and black colors were available for 2007 models and grabber orange or vista blue were available for 2008. A convertible was available in 2008 also. An available upgrade from the Shelby factory in Las Vegas were a few different superchargers. It then was called a Shelby GT/SC. All Shelby GTs are shipped with the Shelby serial number (CSM) on the dashboard badge and in the engine compartment, such as 07SGT0001 or 08SGT0001.

Both Ford and Shelby American continue to use the Shelby name on high performance variants of the Mustang.

## **Non-Ford projects**

In 1963 the Rootes Group, manufacturer of Sunbeam automobiles, wanted Shelby to upgrade their Alpine sports car to a more powerful version, using the Ford small-block V-8 engine, as he had done with the AC Cobra. Shelby did so and Rootes, pleased with the results, named the upgraded model the Tiger. In 1967 Chrysler bought Sunbeam and decided to use their own small block engine in the vehicle. However, their engine would not fit and marketed the cars with Ford engines until the supply ran out and the model was discontinued.

In his later years, Shelby brought several lawsuits against companies making copies of the Cobra body for use on kit cars – ostensibly for

copyright, trademark, and patent violations. Despite the litigation, the Cobra kit car industry continues to thrive.

One of the lawsuits involved the Superformance Brock Coupe, a copy of the original Shelby Daytona Coupe. The Superformance Brock Coupe was designed by Pete Brock, who had also designed the original Daytona Coupe for Shelby. Shelby American sued Superformance after the company had developed and begun production of the Superformance Brock Coupe. Eventually, the litigation was settled, though the terms of the settlement have never been released to the public. As a result of the agreement between the two companies, the product is now known as the Shelby Daytona Coupe, despite being neither designed nor built by Shelby American. Nearly 150 of these new Shelby Daytona Coupes have been built as of February 2007.

In 2002, Unique Performance, a company of Farmers Branch, Texas, purchased a license from Carroll Shelby Enterprises to place his name on a series of continuation vintage vehicles. This company specialized in recreating 1960s-style Shelby Mustangs. They purchased used Mustangs and installed updated versions of the Shelby 325-horsepower 302-cubicinch V8 engine. They also use modern five-speed manual transmissions, brakes, steering, suspension, interiors, and entertainment systems. Because Shelby's license was purchased, these cars have Shelby serial numbers.<sup>[33]</sup>

In October 2007, Carroll Shelby ended his licensing agreement with Unique Performance due to numerous issues of customer complaints where vehicles were not delivered. Unique Performance was subsequently raided by law enforcement for VIN irregularities and declared bankruptcy, which effectively ended the Shelby continuation "Eleanor" Mustang production.<sup>[34]</sup> Shelby was in turn sued by victims of Unique Performance for his involvement in the criminal activity,

The 2000 remake of *Gone in 60 Seconds* movie highlighted the star car character "Eleanor," a customized 1967 Mustang. Some custom car businesses began to reproduce "Eleanor"-looking cars with the trademarked name, causing Denice Halicki to again take legal action to protect the trademark and the copyrighted Eleanor's image. In 2008, Halicki won a case against Carroll Shelby, who was also selling "Eleanor" using the trademark name and copyrighted image.

The Scaglietti Corvette began when Gary Laughlin, a wealthy Texas oilman, and gentleman racer, had just broken the crankshaft in his Ferrari Monza. Like most Ferrari repairs, this was not going to be a cheap, simple fix. At the

time, Laughlin was an active participant in the American sports car racing scene and was a close acquaintance of many of the key figures, including fellow Texan Shelby. The two had witnessed a number of V8-powered home-built specials challenge, and often defeat, the best that Europe had to offer. The idea developed that they should build a dual-purpose car based on the solid mechanicals of the Chevrolet Corvette. European-style alloy coachwork could help the chassis finally realize its potential. By chance, Laughlin owned a few Chevrolet dealerships and had a particularly valuable friend in Peter Coltrin, an automotive journalist who had gained an "in" with the influential Italians. Laughlin met with Jim Hall and Carroll Shelby to begin discussing what form their new Italian-American hybrid would take. The general consensus was that they should create a car that offered the best of both worlds – a Corvette with the distinction, performance, and style of a Ferrari, but with the power and reliability of a Chevrolet. The aim was to create a genuine high-performance GT with enough leg and headroom to meet American expectations. Once this was decided, Coltrin put Laughlin in touch with Sergio Scaglietti. With the help of Chevrolet General Manager Ed Cole, three 1959 Corvette chassis were discreetly acquired from the St. Louis Corvette plant before bodies could be fitted – one was specified with a "fuelie" and a four-speed, the others came with twin four barrels and automatics. During one of his frequent trips through Europe, Laughlin met with Sergio Scaglietti who agreed to produce a small run of bodies for the Corvette chassis. At the time, Scaglietti was busy turning out Ferrari's Tour de France and purpose-built racing cars. The Scaglietti Corvette would follow the lines of the Tour de France, albeit lines adapted to fit the Corvette's larger footprint. In an effort to impress, or perhaps, appease GM management, Laughlin specified a proper Corvette grille. The interior would be similarly hybridized with an intriguing combination of Americana -Stewart Warner gauges, T-handle parking brake, Corvette shift knob; and classic Italian GT – a purposeful crackle-finish dashboard, deeply bolstered leather seats, and elegant door hardware.

The completed car arrived in Texas in the fall of 1960, almost 18 months after the chassis had been obtained. It proved to be the only one of the three to be finished in Italy and shipped back to the United States as a complete car. When Laughlin received the car, the fit and finish were not quite what he was expecting, especially as the project had taken nearly three years from conception to completion. Enzo Ferrari would have been quite unhappy to hear that his exclusive coachbuilder was working on side projects for a group of Texans, so, to Scaglietti's credit, the car was largely a prototype and the work was executed in a shroud of secrecy. Towards the

end of the project, Carroll Shelby, who by then was living in Italy, received a late-night phone call from Ed Cole. Cole had been chastised by GM management and was told to drop the project. It was poor timing. American car companies were under pressure to cut down on their high-performance and racing programs. They simply could not deal with the repercussions of a GM-backed Italian-bodied Corvette. The remaining cars were shipped to Houston in a partially completed state. Jim Hall took delivery of one. Shelby, who had helped conceive the project, ended up declining the remaining car and it was promptly sold.

## **Other projects**

Shelby licensed his name to many products outside of the automotive industry. Currently, his name and other trademarks associated with him are licensed to other companies by Carroll Shelby Licensing, a subsidiary of holding company Carroll Shelby International.

Carroll Shelby's name is associated with a chili fixings kit. The kit consists of spices in several packets, which used to come in a brown paper bag, but now comes in a box. On the side of the bag was a story related by Shelby cooking chili during his racing days. On the front of the bag was a depiction of a big western black hat, a trademark piece of clothing for Shelby. He was a founder of the Terlingua International Chili Championship in Terlingua, Texas. The product has since been bought by Reily Products who have discontinued the inclusion of a separate salt packet.

In 1967, Shelby marketed a men's grooming product, the "Carroll Shelby's Pit-Stop ... a Real Man's Deodorant" that was promoted in car magazines.<sup>[42]</sup>

Shelby was the initial partner of Dan Gurney in establishing Gurney's All-American Racers.

Donzi Marine developed the Donzi Shelby 22 GT, a 22-foot (7 m) speedboat based on their Classic line of boats in collaboration with Carroll Shelby.

Carroll Shelby produced a line of eight-spoke alloy wheels for Saab automobiles in the early to mid-1980s. They were available in gold (Goldvane), hammered silver (Silvervane) finish, and a black hammered finish. These wheels were available through Saab dealers and could be fitted to Saab 99 and Saab 900 models manufactured through 1987.

Shelby supported a project with Rucker Performance Motorcycles to manufacture 12 Shelby motorcycles that were designed by William Rucker.

In 2008 Shelby was awarded the 2008 Automotive Executive of the Year Award.

Shelby established the Carroll Shelby Children's Foundation to cover medical bills of children who have heart disease but are unable to pay for treatment.

In 2008, Shelby initiated a partnership with the Northeast Texas Community College (NTCC) Automotive Program. NTCC is the local community college for Shelby's hometown of Leesburg, Texas. He provided a significant monetary gift to fund scholarships for local students interested in automotive technology and made a commitment to continue providing support. The program was renamed the Carroll Shelby Automotive Program that same year and the Carroll Shelby Foundation continues to provide annual scholarships and facilitate unique learning opportunities for NTCC students.

### Memoir

Shelby wrote his memoir called *The Carroll Shelby Story* published in 1967 by Pocket Books. In 2019, the book was re-released by Graymalkin Media for the opening of *Ford v Ferrari*, a 2019 American sports drama film. The memoir describes his days as a race car driver, the challenges, the victories, and the crashes — the worst of which he describes as an "explosion." The memoir also discusses the genesis for the Shelby Cobra.

## **Personal life**

Shelby was married seven times; the first and last marriages lasted 15 years before divorce proceedings.

Shelby's first wife was Jeanne Fields; they married on December 18, 1943. They had three children: Sharon Anne (born September 27, 1944), Michael Hall (born November 2, 1946), and Patrick Bert (born October 23, 1947). They divorced in February 1960.

Shelby later admitted to an extramarital affair with Jan Harrison, an actress. In 1962, Shelby married Harrison, but the marriage was annulled the same year. His third marriage, to a New Zealand woman, which he entered in order to get her into the United States, lasted only a few weeks before ending in divorce. His fourth marriage, to Sandra Brandstetter, lasted a couple of years before ending in divorce.

In 1989, after 28 years of being single, Carroll married Cynthia Psaros, a former actress, beauty queen, and daughter of a retired US Marine colonel fighter pilot. During this marriage, Carroll received his long-awaited heart transplant. Their marriage lasted a few short years before ending in divorce. In the 1990s he married Helena "Lena" Dahl, a Swedish woman he had met

in 1968. She died in a car accident in 1997. It was his only marriage that did not end in divorce, annulment, or separation.

Just four months after Dahl's death, Shelby married his last wife, Cleo (nee Rendell-Roberts), a British former model who drove rally cars. She was 25 years his junior. They were in the process of divorce when he died in 2012.

Shelby received a heart transplant in 1990, and a kidney transplant in 1996.

Shelby died on May 10, 2012, at the age of 89. He had been suffering from a serious heart ailment for decades.

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# **Preston Tucker - Tucker**

Preston Thomas Tucker (21 September 1903 – 26 December 1956) was an American automobile entrepreneur who developed the innovative Tucker 48 sedan, initially nicknamed the "Tucker Torpedo", an automobile which introduced many features that have since become widely used in modern cars.

Production of the Tucker '48 was shut down on 3 March 1949 amid scandal and controversial accusations of stock fraud, of which Tucker was eventually acquitted. The 1988 movie *Tucker: The Man and His Dream* is based on Tucker's spirit and the saga surrounding the car's production.

### Preston Tucker was born on

a peppermint farm near Capac, Michigan. His father was a railroad engineer named Shirl Harvey Tucker (1880-1907), and his mother was Lucille Caroline (née Preston) Tucker (1881-1960). He grew up outside Detroit in the suburb of Lincoln Park, Michigan. Tucker was raised by his mother, a teacher, after his



father died of appendicitis when Preston was three or four years old.

First learning to drive at age 11, Tucker was obsessed with automobiles from an early age. At age 16, Preston Tucker began purchasing late model automobiles, repairing and refurbishing them to sell for a profit. He attended the Cass Technical High School in Detroit, but he quit school and landed a job as an office boy for the Cadillac Motor Company, where he used roller skates to make his rounds more efficiently. In 1922, young Tucker joined the Lincoln Park Police Department against the pleas of his mother, his interest stirred by his desire to drive and ride the fast, high-performance police cars and motorcycles. His mother had him removed from the LPPD, pointing out to police officials that at 19, he was below the department's minimum required age.

Tucker and his new wife, Vera (married in 1923 at 20), then took over a sixmonth lease on a gas station near Lincoln Park, running the station

together. Vera would run the station during the day while Preston worked on the Ford Motor Company assembly line. After the lease ran out, Tucker quit Ford and returned to the LPPD, but in his first winter back he was banned from driving police vehicles after using a blowtorch to cut a hole in the dashboard of a cruiser to allow engine heat to warm the cabin.

During the last couple of months at the gas station, Tucker began selling Studebaker cars on the side. He met an automobile salesman, Michael Dulian, who later became sales manager for the Tucker Corporation. Dulian hired Tucker as a car salesman at his Detroit dealership. Tucker did very well, but the dealership was a long drive from his Lincoln Park home and so Tucker quit and briefly returned to the LPPD for the last time. A few months later, Dulian, still impressed with Tucker's immediate success as a salesman, invited Tucker to move south with him to Memphis, Tennessee, to work as a sales manager. Dulian was transferred a couple of years later, but Tucker stayed in Memphis and was a salesman for Ivor Schmidt (Stutz) and John T. Fisher Motor Company (Chrysler), where he became general sales manager. While managing Chrysler sales in Memphis, Tucker made a connection with Pierce-Arrow. In 1933, Tucker moved to Buffalo, New York, and became regional sales manager for Pierce-Arrow automobiles, but after only two years, he moved back to Detroit and worked as a Dodge salesman for Cass Motor Sales.

## Auto racing and the Indianapolis 500 (1932–1939)

During the early 1930s, Tucker began an annual one-month trek to the Indianapolis Motor Speedway. Having a heavy interest in the race cars and their designers, Tucker met Harry Miller, maker of more Indianapolis 500-winning engines than any other during this period. Tucker moved to Indianapolis to be closer to the racing car development scene and worked as the transportation manager for a beer distributor, overseeing the fleet of delivery trucks for the company.

A better engineer than businessman, Miller declared bankruptcy in 1933 and was looking for new opportunities. Tucker persuaded Miller to join him in building race cars, and they formed "Miller and Tucker, Inc." in 1935. The company's first job was building 10 souped-up Ford V-8 racers for Henry Ford. However, the time to develop and test the cars was insufficient, and the steering boxes on all entrants overheated and locked up, causing them to drop out of the race. The design was later perfected by privateers, with examples running at Indy through 1948. Miller and Tucker, Inc. continued race car development and various other ventures until Miller's death in 1943. Tucker was close friends with Miller and even helped Miller's widow

pay for her husband's funeral costs. While working with Miller, Tucker met the Chevrolet <u>brothers</u> and chief mechanic/engineer John Eddie Offutt, who would later help Tucker develop and build the first prototype of the Tucker 48. Tucker's outgoing personality and his involvement at Indianapolis made him well known in the automotive industry by 1939.

## Tucker Combat Car and the Tucker Gun Turret (1939–1941)

In late 1937, while recovering in an Indianapolis hospital from an appendectomy, Tucker was reading the news and, learning of looming war in Europe, he got the idea of developing a high-speed armored combat vehicle. In 1939, Tucker moved his family back to Michigan and bought a house and property in Ypsilanti. He remodeled an old barn on his property and began and operated a machine shop called the Ypsilanti Machine and Tool Company, planning to use the facility to develop various automotive products.

Opportunity arose for Tucker from the Netherlands, whose government wanted a combat vehicle suited to the muddy Dutch terrain. Continuing his working relationship with Harry Miller, Tucker began designing the "Tucker Combat Car", nicknamed the "Tucker Tiger", a narrow-wheelbase armored car powered by a Miller-modified Packard V-12 engine.

At least one prototype of the combat car was built. Production of the car was to be done at the Rahway, New Jersey, factory owned by the American Armament Corporation. The Germans invaded the Netherlands in the spring of 1940 before Tucker could complete the deal, and the Dutch governmentin-exile lost interest, so he completed the prototypes and opted to try to sell the vehicle to the United States Armed Forces. The car is said to have reached 100 mph (161 km/h), far in excess of the design specifications. The U.S. military rejected the Combat Car, as they felt the vehicle was too fast, and had already committed to other combat vehicles. However, the highly mobile, power-operated gun turret featured on the Combat Car, the "Tucker Turret", earned the interest of the United States Navy. Harry Miller would later take some of the designs from the Tucker Combat Car to American Bantam, where he was involved in the development of the first Jeep.

The Tucker Turret was soon in production (initially at Tucker's Ypsilanti machine shop). Though the turret is often reported to have been used widely on bombers, like the B-17 and B-29, it was actually developed for the Douglas B-18 Bolo. In the end, no Tucker turrets were equipped on any bombers. Tucker's patent and royalty rights were confiscated by the

U.S. and Tucker was embroiled in lawsuits for years trying to recoup royalties for use of his patents on the turret.

## Tucker Aviation Corporation and Higgins-Tucker Aviation (1941– 1943)

In 1940, Tucker formed the Tucker Aviation Corporation, with the goal of manufacturing aircraft and marine engines. The corporation (Tucker's first) was initially based at his shop behind his Michigan home. A public corporation with stock certificates issued, Tucker raised enough to develop the design for a fighter aircraft, the Tucker XP-57, which earned the interest of the United States Army Air Corps (USAAC). Development of a single prototype of the XP-57 was started, powered by a straight 8-cylinder engine developed and influenced by Harry Miller, called the Miller L-510. Nicknamed the "Peashooter", this fighter competed for WWII government war contracts. However, financial problems within the company slowed the development of the prototype and the USAAC allowed the contract to lapse.

During World War II, Tucker became associated with Andrew Jackson Higgins of Higgins Industries, builder of Liberty ships, PT boats, and landing craft. Higgins acquired Tucker Aviation Corporation in March 1942, and Tucker moved to New Orleans, Louisiana, to serve as a vice-president of Higgins Industries, specifically in charge of the Higgins-Tucker Aviation division. This entity was to produce gun turrets, armament, and engines for Higgins' torpedo boats. However, this relationship did not work out and Tucker severed his association with Higgins in 1943. Go referred to Preston Tucker as "The world's greatest salesman. When he turns those big brown eyes on you, you'd better watch out!"

After 1943, Tucker moved back to Michigan, intending to start his own auto company, the Tucker Corporation.

# Tucker Corporation and the 1948 Tucker Sedan (1944–1947)

After the war, the public was ready for new car designs, but the Big Three automakers had not developed any new models since 1941, and were in no hurry to introduce them. That provided great opportunities for new small, independent automakers who could develop new cars more rapidly than the huge legacy automakers. Tucker saw his opportunity to develop and bring his "car of tomorrow" to market. Studebaker was first with an allnew postwar model, but Tucker took a different tack, designing a safetyoriented car with innovative features and modern styling.

Tucker's first design appeared in *Science Illustrated* magazine in December 1946, showing a futuristic version of the car with a hydraulic drive system designed by George Lawson, along with a photo of a 1/8 scale model blown up to appear full sized, titled the "Torpedo on Wheels". That was only an early rendering of the proposal, with its design features yet to meet reality, but the motoring public was now excited about the Tucker.

To finish the prototype design and get construction under way, Tucker hired famed stylist Alex Tremulis, previously of Auburn/Cord/Duesenberg, on December 24, 1946, and gave him just six days to finalize the design. On December 31, 1946, Tucker approved Tremulis's preliminary design. Tucker's future-car became known as the "Tucker Torpedo" from the first Lawson sketch; however, not desiring to bring to mind the horrors of WWII, Tucker quickly changed the name to the "Tucker 48". With Tremulis's design sketch, a full-page advertisement was run in March 1947 in many national newspapers claiming "How 15 years of testing produced the car of the year". Tucker said he had been thinking about the car for 15 years. The second advertisement described specifically many of the innovative features Tucker proposed for his car, many of which would not make it to the final car. This advertisement had the public very excited about this car, but Tucker had much work to do before a prototype was ready to be shown.

To finalize the design, Tucker hired the New York design firm J. Gordon Lippincott to create an alternate body. Only the front end and horizontal taillight bar designs were retained for the final car. A sports car variant of the Tucker 48, the Tucker Talisman, was sketched as well but never left the drawing board.

To diversify his corporation, Tucker imported Italian engineer Secondo Campini, who was well known and respected in the aviation industry. He was put in charge of pursuing a United States Air Force development contract, hoping to use Tucker's huge Chicago factory to someday build more than just cars. Campini and Tucker also began developing plans for a gas turbine-powered car to be produced by Tucker.

The Tucker Export Corporation was also formed, based in New York, which was established as an entity to manage worldwide sales of Tucker's cars. Headed by Tucker's long-time friend, Colombian Max Garavito, distributorships were set up internationally, including South America and South Africa.

Tucker assembled a group of automotive industry leaders for Tucker Corporation, including:

- Fred Rockelman; Tucker VP and Sales Director (Formerly president of Plymouth)
- Hanson Brown; Executive VP (Formerly VP for General Motors)
- KE Lyman; Development engineer (Formerly of Bendix Corporation and Borg-Warner)
- Ben Parsons; Tucker engineering VP and chief engineer (International fuel injection expert)
- Lee S. Treese; VP of manufacturing (Formerly a Ford executive)
- Herbert Morley; (Borg-Warner plant manager)
- Robert Pierce; VP and Treasurer (Formerly secretary of Briggs Manufacturing Company)

Tucker and his colleagues were able to obtain the largest factory building in the world, the 475-acre (1.92 km<sup>2</sup>) Dodge Chicago Aircraft Engine Plant, which was later known as the Chicago Dodge Plant, from the War Assets Administration. The facility had previously been used to build the massive Wright R-3350 Cyclone engines for B-29 Superfortress aircraft during WWII. Tucker, thinking long-term, believed this large facility would fit his long-term goal of producing an entire line of Tucker automobiles under one roof.

Tucker signed the lease in July 1946, contingent on him raising \$15 million in capital by March 1947. Tucker needed this money to get going, so he began raising money by selling dealership rights and floating a \$20 million stock issue through the Chicago brokerage firm Floyd D. Cerf. With over \$17 million in the bank by 1947, the Tucker Corporation was up and running.

While Tucker ultimately got the plant, he was not able to move in until September 1947 because of delays caused by counter-claims and disputes over the plant between Tucker and the Lustron Corporation. That delayed Tucker by almost a year, during which time development of the car continued at his Michigan machine shop. Tucker planned for 60,000 cars a year, with 140 per day produced for the first 4 months and 300 per day produced afterward.

Tucker suffered another setback when his bids to obtain two steel mills to provide raw materials for his cars were rejected by the WAA under a shroud of questionable politics.

Tucker's specifications for his revolutionary car called for a rear engine, a low-RPM 589 cu in (9.7 L) engine with hydraulic valves instead of a camshaft, fuel injection, direct-drive torque converters on each rear wheel (instead of a transmission), disc brakes, the location of all instruments

within the diameter and reach of the steering wheel, a padded dashboard, self-sealing tubeless tires, independent springless suspension, a chassis that protected occupants in a side impact, a roll bar within the roof, a laminated windshield designed to pop out during an accident, and a center "cyclops" headlight which would turn when steering at angles greater than 10 degrees in order to improve visibility around corners during night driving.

While most of those innovations made it to the final 51 prototypes, several were dropped for their cost and the lack of time to develop such mechanically-complicated designs. The low-RPM 589-cubic-inch engine, individual torque converters, mechanical fuel injection, and the disc brakes were all dropped during the design and testing phase.

Having run out of time to develop the 589-cubic-inch engine for the car, Tucker ultimately settled on a modified 334 cu in (5.5 L) Franklin O-335 aircraft engine. He liked the engine so much he purchased its manufacturer, Air-cooled Motors in New York, for \$1.8 million in 1947, securing a guaranteed engine supply for his car.

# **Turmoil surrounding Tucker Corporation (1946–1948)**

The U.S. Securities and Exchange Commission bothered the Tucker Corporation from its earliest days. The SEC was embittered after small automaker Kaiser-Frazer was given millions of dollars in grants towards development of a new car, and subsequently squandered the money. While Tucker took no money from the federal government, small upstart automakers were under intense SEC scrutiny, and Tucker was no exception.

One of Tucker's most innovative business ideas caused the most trouble for the company and was used by the SEC to spark its formal investigation. His Accessories Program raised funds by selling accessories before the car was even in production. Potential buyers who purchased Tucker accessories were guaranteed a spot on the dealer waiting list for a Tucker '48 car. Tucker also began selling dealerships before the car was ready for production, and at the time of the trial had sold over 2,000 dealerships nationwide at a price of \$7,500 to nearly \$30,000 each.

Feeling pressure from the SEC, Harry Aubrey Toulmin Jr., the chairman of the Tucker board of directors, resigned and wrote a letter to the SEC on September 26, 1947, in an attempt to distance himself from the company.<sup>[8]</sup> In the letter, Toulmin indicated that he quit "because of the manner in which Preston Tucker is using the funds obtained from the public through sale of stock." Describing Tucker as "a tall, dark, delightful, but inexperienced boy", Toulmin added that the Tucker 48 "does not actually

run, it just goes 'goose-geese'" and "I don't know if it can back up." In reply, Tucker claimed that he had asked Toulmin to resign "to make way for a prominent man now active in the automobile industry"—himself.

In late 1947, a radio segment on Tucker by popular journalist Drew Pearson criticized the Tucker 48, calling it the "tin goose" (referring to Howard Hughes' Hughes H-4 Hercules, nicknamed the "Spruce Goose") and noting that the first prototype "could not even back up". The first prototype lacked a reverse gear because Tucker had not had time to finish the direct torque drive by the time of the car's unveiling. This was corrected in the final driveline, but the public damage was done and a negative media feeding frenzy resulted. Tucker responded by publishing a full-page advertisement in many national newspapers with "an open letter to the automobile industry" wherein he subtly hinted that his efforts to build the cars were being stymied by politics and an SEC conspiracy. Nonetheless, dealership owners began filing lawsuits to recover their money, and Tucker's stock value plummeted.

# SEC trial and demise of the Tucker Corporation (1949–1950)

In 1949, Tucker surrendered his corporate records to the SEC. United States Attorney Otto Kerner Jr. began a grand jury investigation in February 1949. On March 3, a federal judge handed control of the Tucker Corporation over to Aaron J. Colnon and John H. Schatz. Soon thereafter on June 10, Tucker and six other Tucker Corporation executives were indicted on 25 counts of mail fraud, five counts of violations of SEC regulations, and one count of conspiracy to defraud. The indictment included Tucker, 46; Harold A. Karsten, 58, "alias Abe Karatz"; Floyd D. Cerf, 61 (whose firm had handled the stock offering); Robert Pierce, 63; Fred Rockelman, 64; Mitchell W. Dulian, 50, Tucker sales manager; Otis Radford, 42, Tucker Corporation comptroller; and Cliff Knoble, 42, Tucker advertising manager.

Tucker publicly called the charges "silly and ridiculous" and hailed the indictment as "an opportunity to explain our side of the story". Tucker and his colleagues' defense were handled by a team of attorneys led by William T. Kirby.

Another publication, *Collier's*, ran an article critical of Tucker on June 25, 1949, which included leaked details of the SEC report (which was never released publicly). This article was reprinted in *Reader's Digest* as well, expanding the scope of the negative press concerning Preston Tucker.

The trial began on October 4, 1949, presided over by Judge Walter J. LaBuy. Tucker Corporation's factory was closed on the very same day. At that point,

only 37 Tucker 48s had been built. A corps of 300 loyal employees returned to the factory (some without pay) and finished assembly of another 13 cars for a total production of 50 cars (not including the prototype).

At trial, the government contended that Tucker never intended to produce a car. Throughout the trial, the SEC report on Tucker was classified as "secret" and Tucker's attorneys were never allowed to view or read it, but it was leaked to the press nevertheless.

As the trial proceeded, the government and SEC brought several witnesses (mostly former Tucker employees) to highlight the rudimentary methods used by Tucker to develop the car; the early suspensions were installed three times before they worked, and early parts were taken from junkyards to build the prototype. Answering back in Tucker's defense, designer Alex Tremulis testified that it was common industry practice to use old car parts for prototype builds, and pointed out this had been done when he was involved with developing the 1942 Oldsmobile under General Motors.

Tucker Vice President Lee Treese testified that Tucker's metal stamping and parts fabrication operations were 90% ready to mass-produce the car by June 1948 and that outside interference had slowed the final preparations for production. This back and forth between the prosecution and the defense continued until November 8, 1949, when the judge demanded the SEC prosecutors "get down to the meat of the case and start proving the conspiracy charge."

Defense attorney Kirby directed attention to automaker Kaiser-Frazer, pointing out that early models of their government-funded new car model had been made of wood and that when this project failed, Kirby stated in court documents that "Kaiser-Frazer didn't get indicted, and they got 44 million dollars in loans from the government, didn't they?" All told Kaiser-Frazer had received nearly \$200 million in government grants, but did not produce the car they promised.

After a break for Christmas, the trial resumed in January 1950. The government's star witness, Daniel J. Ehlenz, a former Tucker dealership owner and distributor from St. Paul, Minnesota, testified that he had lost \$28,000 in his investment in the Tucker Corporation. However, on crossexamination, the defense used this witness to their advantage when Ehlenz testified that he still drove his Tucker 48 given to him by Tucker, and that the car had 35,000 miles (56,000 km) on it and still cruised smoothly at 90 miles per hour (140 km/h).

The tide turned in Tucker's favor when the government called its final witness, SEC accountant Joseph Turnbull, who testified that Tucker had taken in over \$28 million and spent less than one-seventh of it on research and development of the car. He stated that Tucker had taken over \$500,000 of the investors' money for himself, but never delivered a production car. Kirby rebutted Turnbull's claims on cross-examination, asking for proof of the allegations of financial mismanagement from Tucker's seized financial records. Turnbull was unable to offer such evidence. In closing his witness testimony, Kirby asked Turnbull, "You are not here suggesting these figures are figures of monies taken fraudulently, are you?" Turnbull's answer was, "Not exactly, no."

After this final SEC witness, Tucker's defense attorneys surprised everyone by refusing to call any witnesses to the stand. Defense attorney Daniel Glasser told the court, "It is impossible to present a defense when there has been no offense". In his closing arguments, Kirby became tearful and emotionally told the jury to "stop picking at the turkey", and stated that Tucker "either intended to cheat and that's all they intended to do or they tried in good faith to produce a car. The two are irreconcilable." He then invited the members of the jury to take a ride in one of the eight Tucker 48s parked in front of the courthouse before they made their decision.

On January 22, 1950, after 28 hours of deliberations, the jury returned a verdict of "not guilty" on all counts for all accused. Tucker had prevailed at the trial, but the Tucker Corporation, now without a factory, buried in debt, and faced with numerous lawsuits from Tucker dealers that were angry about the production delays, was effectively no more.

## Speculation and controversy surrounding the Tucker Corporation

Despite the outcome of the trial, speculation has continued with regard to the question of whether Tucker genuinely intended to produce a new car and bring it to market, or whether the entire enterprise was a sham, designed for the sole purpose of collecting funds from gullible investors. Tucker collectors of the Tucker Automobile Club of America have amassed over 400,000 drawings, blueprints, corporate documents, and letters which they believe suggest that Tucker was, in fact, developing the manufacturing process necessary to mass-produce the Tucker 48. They also point to the fact that by the time of the investigation, Tucker had hired over 1,900 employees, including teams of engineers and machinists. At the trial, the Tucker VP Lee Treese testified that they were 90% ready with industrial machinery at the Chicago plant to mass-produce the vehicle.

# Later life and death (1950–1956)

Preston Tucker's reputation rebounded after the acquittal. His optimism was remarkable; after the trial was over, he was quoted as saying, "Even Henry Ford failed the first time out." Tucker Corporation assets were auctioned off publicly in Chicago. One remaining Tucker 48 car was given to Preston Tucker, and another to his mother.

In the early 1950s, Tucker teamed up with investors from Brazil and auto designer Alexis de Sakhnoffsky to build a sports car called the Carioca. Tucker could not use the Tucker name for the car, as Peter Dun of Dun & Bradstreet had purchased the rights to the name, and the Tucker Carioca was ultimately never developed.

Tucker's travels to Brazil were plagued by fatigue, and upon his return to the United States, he was diagnosed with lung cancer. Tucker died from pneumonia as a complication of lung cancer on December 26, 1956, at the age of 53. Tucker is buried at Michigan Memorial Park in Flat Rock, Michigan.

## Legacy

In 1954, a group of investors tried to revive the Tucker Corporation by soliciting investors, mostly former Tucker distributors and dealer owners, for a new car. This effort was led by George A. Schmidt, former president of the Tucker Dealers Association. They developed sketches for a sleek 2-door convertible, but were unable to generate enough support to get it off the drawing board.

Tucker's defense attorney, William T. Kirby, later became Chairman of the Board of the John D. and Catherine T. MacArthur Foundation.

Otto Kerner Jr., the U.S. Attorney who had aggressively pursued the Tucker Corporation, was later convicted on 17 counts of bribery, conspiracy, perjury, and related charges for stock fraud in 1974. He was the first federal appellate judge in U.S. history to be jailed. Kerner was sentenced to three years in prison and fined \$50,000.

The location of the former Tucker Corporation, 7401 S. Cicero Avenue in Chicago, became the corporate headquarters of Tootsie Roll Industries and the Ford City Mall (the building was owned for a time by Ford Motor Company). The building was so large that it was divided in two, with a large open area between the two resulting buildings.

Tucker's design concepts for the Tucker 48 included revolutionary ideas in car safety that helped formulate car safety standards. The Tucker family held on to Air-cooled Motors until 1961, when it was sold to Aero Industries.

The remaining Tucker 48 cars are highly collectible, and examples in very good condition have commanded prices of up to \$3 million each. Original stock certificates for Tucker Corporation common stock are valuable to collectors, and are worth more than when originally issued. Over 10,000 such stock certificates were personally signed by Preston Tucker, making these the most desirable.

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