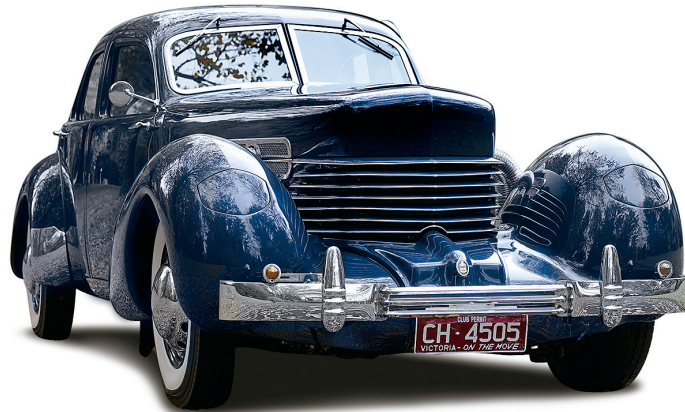


# Cord 812 Westchester Sedan, 1937



The *Cord 812 Westchester sedan* was manufactured by the Auburn Automobile Company in 1937. The design, engineering and styling features of this vehicle surpassed many of the cars manufactured in the 1930s and were so innovative that many of these features have become standard additions in all cars today.

Errett Lobban Cord, a Los Angeles used-car salesman, was ambitious and determined to create a distinctive stamp in the automobile business. He rose quickly in the ranks of the Auburn Automobile Company to become chief stockholder and president. E. L. Cord aspired to create a car that could rival the empires of Ford and General Motors. To do this he would need to create a vehicle that was mechanically superior and stylistically modern. He employed designers and engineers such as Gordon Buehrig (styling and body design), Herbert C. Snow (engineering) and Harry A. Weaver (reputed to design Cord transmission).

In 1951 an exhibition titled *Eight Automobiles*, held at the Museum of Modern Art in New York, featured the Cord 812 as one of the most important cars of the era. The curator, Arthur Drexler, declared the Cord as 'the outstanding American contribution to automobile design'. The Cord appears to have been inspired by the futuristic comics of Flash Gordon. The sleek design made running boards, a standard feature in all other cars of this time, redundant. One did not step up into the Cord, one stepped into the car.

Features such as pop-up headlights were a first. These were crafted to manually wind up and down from the dash panel controls. Gas caps were concealed and flush with the body of the car. The wheels were fully covered; a design feature of all motor vehicles today. The dash was simply configured with aircraft-inspired knobs and gauges in easy reach of the driver. This feature allowed the driver to check the engine oil level without leaving the cabin of the car and looking under the hood. The horn sounded by pressing a chrome ring within the steering wheel. The Cord was the first American car to include this feature.

The distinctive body design included wrap-around horizontal louvers that accentuated the streamlined appearance. A 'coffin nose' hood allowed a front opening, 'alligator' style, which would become the norm in future car designs.

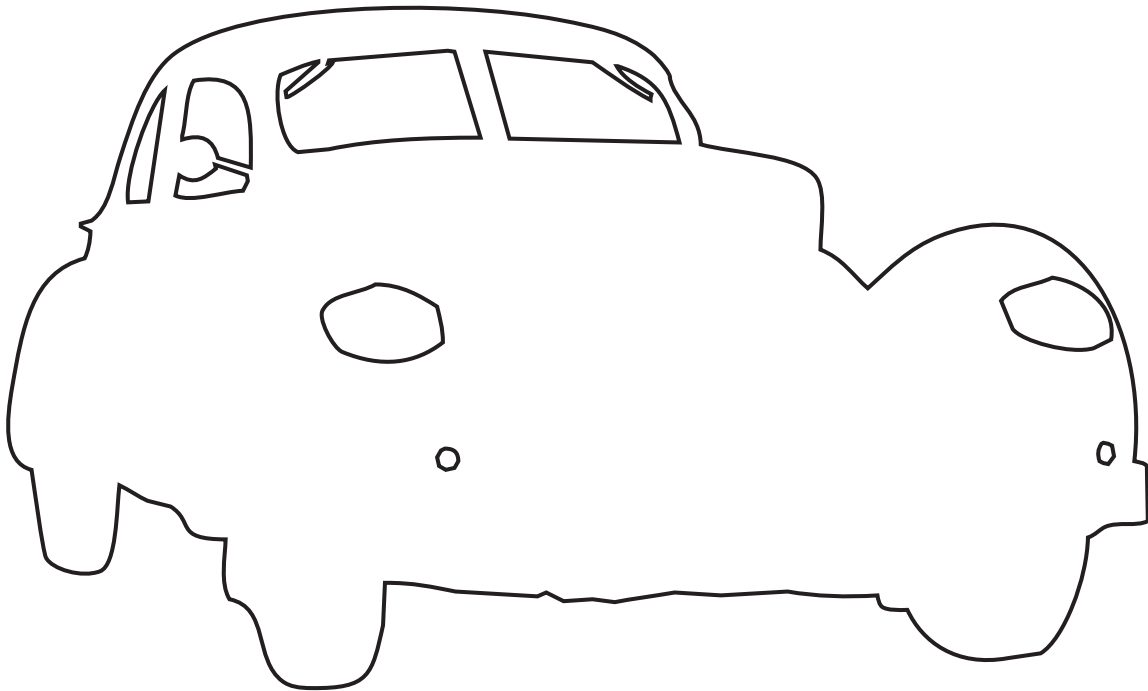
The Cord featured front-wheel drive technology, an electrical pre-selector gear shift and a V8 supercharged engine. This innovation was taken from aeroplane technology. The super charger is a mechanical air pump designed to increase pressure to forcefully feed a combination of air and fuel into the combustion process. This in turn creates greater horsepower, allowing the vehicle to accelerate to higher speeds. The Cord subsequently reached speeds of 110 mph (approximately 180 km), making it America's fastest pre-war production car.

The *Cord 812 Westchester sedan* is often referred to as one of the most beautiful cars ever made, yet only 3000 were manufactured. By 1937 the Auburn Automobile Company was bankrupt, but the company's legacy lived on with the superior and avant-garde design of the Cord.

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## Practical Activities

Render the Cord outline to accentuate forms and emphasise the different materials of the vehicle. Use the arrow to indicate direction of light source to help you create your textures and tones. Experiment with a range of drawing materials to create different surface textures.



The Auburn Automobile Company went into receivership in 1937. Imagine the company exists today. Design a range of merchandising materials that could be used to promote the Cord sedan.

These might include:

- key rings
- carry bag
- mug
- cap
- T-shirt.

Use the design process to help you develop your ideas to final solutions.

## Research and Investigation

What is streamlining?

Trace the development of streamlining and body designs of motor vehicles from the 1900s to now by drawing silhouette profiles of cars from each decade.

Do the changing shapes make the vehicles more efficient?

What is a front-wheel-drive engine?

How is it different from rear-wheel-drive systems?

Explain the advantages and disadvantages of both systems.

Use photographs and/or diagrams you have found to support your answer.

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The following website

[http://en.wikipedia.org/wiki/U.S.\\_Automobile\\_Production\\_Figures](http://en.wikipedia.org/wiki/U.S._Automobile_Production_Figures)

lists the United States production figures of motor vehicles over time.

Find the production figures of Ford, General Motors and Cord motor vehicles throughout the 1930s.

Fill the grid below with these figures.

	Auburn Cord production sales	General Motors production sales	Ford production sales
1930			
1932			
1934			
1936			
1938			
1940			

What social and economic factors could explain the differences between each company?

Read the article '1937 Cord 812 Westchester vs 1937 La Salle Series 50', by Jeff Koch in Hemmings Classic Cars, online at

[http://www.hemmings.com/hcc/stories/2005/07/01/hmn\\_feature18.html](http://www.hemmings.com/hcc/stories/2005/07/01/hmn_feature18.html).

Create a table to describe the major differences of design and engineering of both cars.

The doors of the Cord Westchester sedan open from a central B pillar.

This door design has been nicknamed 'suicide doors'. Why are they often described in this manner? Use diagrams to explain your answer.

Look at the ways doors are hinged in today's cars. What are the main differences?

### Visual Analysis

The Cord Westchester sedan is a distinctive motor vehicle.

Identify design features throughout the car that make it appealing to an audience.

Using the design process, analyse the following:

- Audience. (Who would be interested in purchasing this type of vehicle?)
- Purpose. (Does this object advertise, promote, depict, teach, explain, guide or inform the viewer?)
- Historical, social, economic and technological factors that may have influenced the design of the car.
- Design features. (What makes this car appealing? Use the design elements and principles to help you.)