

The history of Mercedes-Benz W140-serie

The story: History of Legend

As with its predecessor, the W140 was the first of the "next generation" of Mercedes-Benz models to feature the company's new design theme.

1991–1993 400 SE (W140)

1994–1996 S-Class (V140)

1996–1998 CL 500 (C140)

Development on the W140 began in 1981, originally set for an October 1989 production start. From 1982 to 1986 several designs were reviewed, until December 9th 1986 when a definitive design by Olivier Boulay was approved. Several prototypes were tested onwards from early 1987 and the final production exterior design was frozen in 1987, with domestic design patents being filed on 23 February 1988 and U.S. patents 6 months later on 23 August. The design was said by lead designer Bruno Sacco to be influenced by Jaguar's XJ40 sedan and BMW's E32 7-Series. Before production started, the exterior appearance of the W140 was revised in the form of the grille on all W140's being recessed as opposed to a planned exclusive grille on the top model, a feature which later spread to the rest of the Mercedes-Benz range. In 1987, an 18-month delay was made from 1989 to 1991 to accommodate a V12 engine and a high-performance braking system. This resulted in the final development prototypes being completed in June 1990. Pilot production models were made from June 1990 to January 1991.

The W140 introduced innovations such as double-pane window glazing, power-assisted closing for doors and boot lid, electric windows which lowered back down upon encountering an obstruction, rear-parking markers which rose from the rear wings (discontinued on later vehicles, and replaced with sonar-assisted parking) and a heating system which, if desired, continued to emit warm air after the engine was turned off. For details like this, the W140 is often known as the last Mercedes to be "over engineered", a Mercedes trait that was costing the company in product delays and over budgeting. According to Motor Trend, this action reportedly caused project cost overruns and resulted in the departure of Wolfgang Peter, Daimler-Benz's chief engineer. The vehicle is believed to have cost Mercedes-Benz over \$1 billion to develop. For the consumer, the W140 cost a considerable 25 percent more than its predecessor, the W126.

The W140 was to feature air-suspension as an option, but it was dropped shortly before launch because Mercedes was still perfecting the technology at the time. Mercedes chose to launch air-suspension in the next generation S-class in 1999. The W140 instead used a hydro-pneumatic rear suspension, first introduced on the W116 450 SEL 6.9 (introduced in 1975) to be used on the S500 and S600 models. Following the mid-year facelift in 1994, Mercedes-Benz made Electronic Stability Control an optional fixture to both sedan and coupé body styles in the W140 range. Both the sedan and coupé body styles were equipped with Acceleration Slip Regulation (ASR) as a standard feature.

Like its predecessor, the car was available in two wheelbase lengths (short W140 and long V140) along with the C140 coupé. In 1991, a new M120 6 litre 402 horsepower V12 engine joined the lineup for the first time with the 600 SEL and 600 SEC. A "V12" badge was affixed to the C-pillar.

In 1993, the 402 horsepower (408 hp Europe) V12 engine was slightly detuned to 389 horsepower to comply with tighter emission control regulations in the United States and Europe. The V8 models

were tuned down from 322 horsepower to 315 horsepower. This de-tuning, among other changes, involved the deletion of the full-throttle enrichment circuit, which reduced output by 7 horsepower.

The W140 600 SEL was available with wooden rear ash tray covers, wood/leather shift knob, leather dashboard and a suede headliner, unlike the V8 and inline 6-cylinder models. Following the facelift in 1994, the S600 was updated with a wood/leather steering wheel, a V12 badge on the wood/leather shifter, double needle stitching all over the interior and two tone nappa leather seating – further distinctions from its lower rung siblings.

In June 1993, as part of the new corporate naming campaign, the model range was renamed. This resulted in all SE and SEL models now being re-designated as "S", being followed by the numbering.

In late 1991, after worldwide launch, work begun on improvements to the W140. By the end of 1992, final design changes were approved and later patented(application) on February 27, 1993, exactly 5 years after the original W140 design patent application in 1988. In March 1994, the updated models were unveiled at the Geneva Auto Salon and went on sale in April 1994 in mainland Europe and in other markets during the second half of the year. The clear turn signal indicator lenses on the front and new taillights were the most obvious change, as was the grille including a new and distinctive one for S600's. Headlamps were fitted with separate low H7, H1 fog, and high H1 beam reflectors in 1994, pre-1995 models used an H4 bulb and H3 for the fog lamp. In April 1995, "Parktronic" replaced the parking guiders on the rear boot lid.

In 1995, the two tone exterior appearance was made to be monotone, xenon headlamps were added and the rear indicator lenses became clear. The changes were later introduced in June 1996 as 1996.5 models in Europe and 1997 models in the United States.

Height of the W140 production models varied between years (1992-94 W140 Sedan: 58.7 in; 1992-94 V140 Sedan: 58.9 in; 1995-96 W140 Sedan: 58.4 in; 1997-99 V140 Sedan: 58.3 in; C140 Coupe: 56.7 in; 1997-99 W140 Sedan: 58.5 in).

Development

[1981]

Starting point of development.

[1982-1986]

Design chief Bruno Sacco begins with designing the fifth generation S-class with his staff. Oliver Boulay's design was chosen.

[11-1986]

12-cylinder engine, consisting of two 6-goes-in-test-bed

[12-09-1986]

Development of the concept car

[1987]

Prototype testing

Production exterior was frozen

[23-02-1988]

Domestic design patents filed

[23-08-1988]

U.S. design patents filed

[06-1990]

Final development prototypes completed

[06-05-1990]

Trial tests in Spain, Almería

[07-1990]

Development Series 500 SE / L

[08-1990]

Development Series 400 SE / L and 600 SEL

[09-1990]

Development of the 300 series SD

[10-1990]

Development of the SE 600 Series

[01-1991]

Development of the 300 series SE / L

[03-1994]

The updated models were unveiled at the Geneva Auto Salon and went on sale in april 1994

[04-1995]

"Parktronic" replaced the parking guiders on the rear

Presentation W140

[07-03-1991 to 03-17-1991]

Presentation in Geneva on 6-cylinder 300 SEL, 8-cylinder 400 and 500SE / L and 12-cylinder 600SE / L



Starting point of the sales

[04-1991]

Home sales 300SE / L, 400SE / L, 500SE / L, 600SE / L

[10-1991]

Sales of the 300SD, until 1992 in North America

[01-1992]

World premiere of the W140 series coupe at the show in Detroit from 9 to 19 January 1992.

Upgraded brakes 300SE / L.



[02-1992]

Occurrence of many traditional bases in 8-liter five-cylinder and 12-cylinder – 80 mm extension
(extension of the rear door between the rear and front seats)





Presentation of the 500SEC

[+/- 02/03-1992]

Modified ASR system

[03-1992]

European premiere of the body based on W140 – SEC. Presents options 500SEC and 600SEC.

Modified mechanism of closing the doors. Now close easier.

Improved side mirrors – new system against the entry of water, causing corrosion.

Changed brakes.

[06-1992]

Electrically folding mirrors inside.

Changed internal lighting in the gym.

[09-1992]

Development of the 300SE 2.8 version.

[10-1992]

At the Paris Motor Show Mercedes presented versions 300SE and 300SE SD, with “better” prices and these versions were more economical. The 300SE SD is a 3.5 liter engine (6 cylinder) known from previous S-Class W126 series, but with a revised 150 horsepower motor. The 300SE 2.8 was at the same time installed in W124 series.

[+/- 1993]

It represents a technical innovation for the communications and navigation system on the Japanese market (CSN). It's a precursor of the control of a W220 and contains the following functions: navigation, radio, TV, odometer, AUX, organizer and telephone.



[01-1993]

Model 300SE / L & 300SE SD now come with serial tires 235/60 R 16, instead of 225/60 R16.

[06-1993]

Changing the terms of the models. SE and SEL go down in history. Now, as 500SEL becomes S500 L, 500SE – S500, 500SEC – S500 Coupe. The letter shows what class of car. Now a 300SE is a S320 and a 300SE SD is a S350 Turbodiesel.

[09-01-1993]

New radio system (current Becker Europe 2000), Grand Priks 200 Mexico 2000 RDS are replaced by models Classic Special and Exclusive produced again by Becker.

[+/- 10-1993]

Made ever handle chrome trunk, is now replaced with black plastic.

[11-1993]

Current mileage, which is mechanical, has been replaced by electronic as its indicators of liquid crystals.

[02-1994]

Start of production of the 420 S Coupe

[03-1994]

The Geneva Salon are cosmetically modified limousines S-class. Among the innovations are altered form and lamps are lit now with 60% more than before, two-color interior design (only S600), altered rear of the car, 6 – and 12-cylinder engines receive distinctive grille for the V12 limousines with special chrome trim, new wheels appear to be mounted on S420 & S500. For S600 offered glossy. V12-furniture occurs in model S600. Wheel is made of leather and wood. Due to the desire of many customers, who want the top model to distinguish itself from other models.

V12-decoration:







The S600 is installed with the most expensive radio Becker Exclusive.
Changing the design of interior doors.

Before:



After:



Body after changes:



Cabin – family is complemented by S420 Coupe, which performs the function of a more modest and less expensive model from the S500 Coupe and S600 Coupe. Just like its “brother”, the body is equipped with a 4.2 liter engine – V8. All cars receive a new 18 inch wheels. Like the limousine S600, the S600 Coupe also gets sign V12, skin type and Exclusive.



Another technical innovation is the “comfort upload” in the car.

For models with 12-cylinder engine characters appeared “V12” on the end of the right and left rear door. They are distinguished by the optical changes of the headlights and taillights.



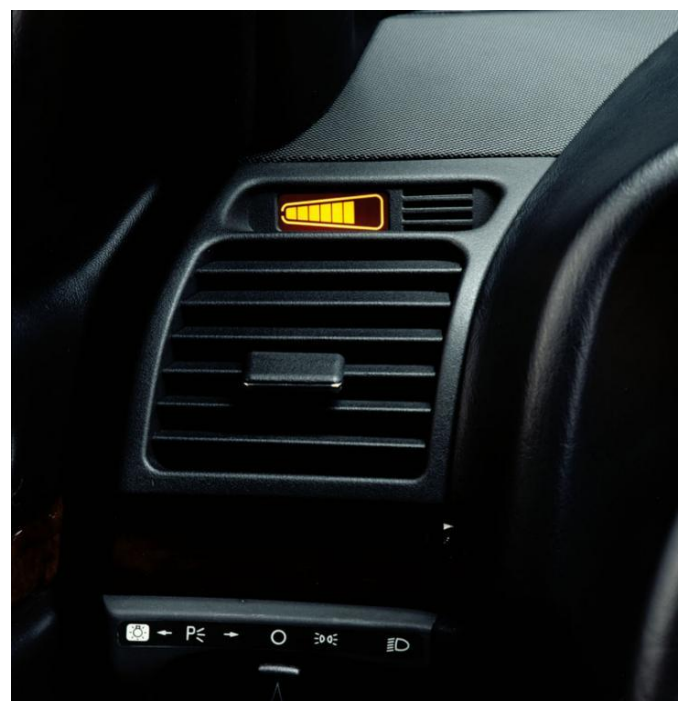
[+/- 10-1994]

Changing body exterior mirror



[04-1995]

From April 1995th optional Parktronic system is available (PTS). This system is facilitated through special parking sensors integrated into the front and rear bumpers. In S600 the system integrates standard in April 1995. From then on all limousine S-class radio antenna, which so far is mounted on the rear fender already mounted on the end of the ceiling





[05-1995]

Two new technical innovations are introduced. First in the S600 Coupe: a new five-speed automatic transmission. And the second: automatic control, through which it is possible to decrease fuel consumption.

On top of this innovation comes that the transmission is managed electronically, which adapts to any situation on the road. Another important thing is that the new automatic transmission is lighter than the previous one. The number of parts can be reduced now rose by 40%.

The next important innovation is the integration of electronic stability system ESP, which corrects the mistakes of the driver by braking force arm.

Also now standard equipment is improved: automatic air conditioning, windows that let through less heat, remote central locking and cruise control. All these innovations are now standard in all S-class limousines.

[06-1995]

Autopilot System (APS) is available. Navigation system ("MB-Special" without kasetofotn) with CD – input and sound system BOSE. The CD-changer for the navigation disc, is located in the luggage compartment.

The handle of the trunk is now made of chrome.

Emergence of the S300 Turbodiesel.



[09-1995]

After cosmetic changes presented in May 1994, September 1995th made some technical changes in 8 – and 12-cylinder engines. Mounted now are five-speed automatic transmissions with the S600 Coupe, these were already installed in smaller “brothers” as well as V8 saloons. The old 4-speed automatic transmission is removed.

Bikes are redesigned to fuel economy and fewer emissions. Both V8 receive a new crankshaft, new venting, lighter pistons, combustion ignition coil for each cylinder and improved electronic mechanism of the type Motoronic ME 1.0.

Changes that gets V12 engine have less volume, more electronic devices. Furthermore, the resulting modifications and automatic gearboxes, fuel consumption is now decreased by 7%, emissions are reduced by 40%. From September 1995th 8-cylinder engines ESP system shall be optional, and if V12 engine as standard.

These changes in production are presented at the exhibition in Frankfurt in September 1995, also a brand new version of the S-Class: S600 Pullman was presented. This is a limousine for VIP-persons with extreme luxury while still upholding the long tradition of Mercedes Benz model range that started with the W100.

This implementation of the S-class is 6213 mm long and exceeds the S600 with one meter. The change comes in the passenger seats, which are made more comfortable and now “passenger itdelenie” can travel 4 people. Pullman limousine is the furnishing of S500 and S600 saloons, as it is made even more exclusive goodies.

Because of the great weight of the armored Pullman after ~ 10,000 km or one year tires must be replaced.





At the time the air console dashboard is similar to that of the model range W210.
Home production of the S600 Pullman.

Major changes in the Mercedes W140

[06-1996]

In June 1996 S-Class is fully updated. Now and 6-cylinder engines offered new 5-speed automatic transmission – in S280 as desired. At the same time, the system ASR.

If the upholstery is also changed. Changed in 1994 for the S600 trim now gets a new better and lighter skin nappa – again in two colors. The former is Exclusive nappa leather. Exclusive nappa skin type as standard in all versions of 12-cylinder engine. In S600 series is now available with a six-pointed wheels for other models: large wheels coupes. Now available xenon headlights with washer system.

The design of the headlights themselves are also changing. Indicators are entirely white strips already in the world body, big antenna on the rear fender phone is now replaced by a small box at the end of the roof.

Other changes listed in June 1996 are, the S350 Turbodiesel is replaced by model S300 Turbodiesel. The new engine has 177 horsepower, torque is higher by 20 NM. Emissions and fuel consumption are reduced. S300 is a 5-speed serial automatic gearbox.

Designation of compartments is changing once again – now called CL. New marking the start of large wardrobes.

In 1996 he was made the overall renovation of the compartments. Innovations include: redesigned door frame with revised protective body color and built parktronic, modified tail lights, side mirror on the driver's side is made smaller. Along with this update to the coupes have already mentioned include updates for the saloons. Now all series coupe is equipped with leather type Nappa. The third stop on coupes is LED technology (LED).

Premiere of the S300 Turbodiesel.









[07-1996]

Home production of the S600 Pullman.

[08-1996]

Stop Series S350 Turbodiesel.

Autumn 1996th world premiere at “Linguatronic”. Through it becomes possible to manage the phone with voice commands. This makes it easy to use and prevent accidents.

[25-11-1996]

Mercedes-Benz presents a completely new system, Brake Assist, which monitors active safety. If necessary system recognizes when to apply more force to the brakes in emergency situations. This also shortens the braking distance and.

[12-1996]

From september 1996 Cutty automatic transmission may be combined with ESP for models S280 and S320. Brake Assist is fitted as standard in all models of the range W129 and W140. Changing a system and cruise control as the computer that manages it is mounted in the trunk. For software updates and diagnostics there are no longer special discs available. The 6-cylinder engine is standard equipment. Other features are: enlarged airbags for driver and front passenger that back, cruise control, which is activated after the speed 30 km/h (not for diesel), intelligent rain sensor that includes automatic wipers with rain and run the wiper speed depending on under the rain. Improved system with infrared remote, and closing and opening of the central indicators flash storage network for passenger and luggage space at the third stop, turn to the right and left wing. The interior gets new trim there are three variants.

[03-1997]

On the 67th Motor Show in Geneva in March 1997 presented one of 50 copies of the super performance of the S-Class. The limited series is developed based on short wheelbase S500 with nice black and red, glossy trim, glossy 18 – inch alloy wheels with five ribs and a grid of S600.

Internal prostransvto is noticeably different from that of “ordinary” S500: the thresholds are placed strips of high quality steel, leather style in black nappa, black and red speedometer and rev around placed graceful strips with dark, high-quality wood trim walnut, with quality bedding cover.

Exclusive equipment includes: APS, the arm, ashtray with a cigarette lighter, automatic telephone, additional lighting, CD-changer, anti-theft system, ESP, electric headrests, small mirrors, Voland leather and wood trim, Parktronic, glass sunroof, seat heating, sound system BOSE, system Linguatronic, adjustment of the front seats with memory, xenon headlights.

The price amounted to 189,750 marks.





In march 1997 presented another version of range W140 – S500 L Landaulet, whose roof off power. This new version should be used for the visit of Pope John Paul II. Front room for two, and behind the throne of the Holy Father.





[04-01-1997]

Communication and navigation system (CSN), which until now are built for Japanese CL500, CL600, S500, S600 is now processed. Now the system is called Information and communication system (ICS).

[06-1997]

A system ASSYST.

It's about a system in which an emergency vehicle by a button on the dashboard or command signal to the nearest Mercedes dealer.

On vehicles with cruise control Phone and GSP is a system with a telephone system that is mounted on the ceiling. GSP-antenna is mounted on the trunk lid and the phone antenna in the attic.

[Mid 1997th]

Wooden elements are swept compartments such chestnut, are former walnut. Wood trim walnut remains optional.

Change in cruise control. Now the lower limit of cruise activity can be elective – Speedtronic.

[01-08-1997]

Information and communication system (ICS) is now embedded in S320.

[09-1997]

Home production of S500 Pullman.

[26-11-1997]

Presented is 400,000th W140 – S600 L in black for the Chinese market.

[01-1998]

Innovations in the autopilot system. Now she has two rotary button, enlarged display receivers with two tuners and buttons "Umweg" (bypass). The volume is adjusted by radio. GSP-A and the phone is now incorporated as standard.

[07-1998]

End of production of S600.

[08-1998]

The proceedings of the CL420, S300 Turbodiesel, S280, S420 and S500.

The end of the legend W140

[09-1998]

End of production after 7 ½ years.

Produced 26,022 coupes, 406,532 saloons, 28,101 of them diesels.

Production of Pullman saloons continued.

The latest S-class W140 series is the S320 L.



End of production for the CL500, CL600, S320, S320 L, S420 L, S500 L, S600 L W140 models.