



Mercedes-Benz

380 SE

380 SEL

500 SE

500 SEL



The new S-class. Engineered for the future – to meet the demands of today

There is, world wide, an increasing demand for spacious executive saloon cars, cars for people who need to travel long distances without effort, for powerful, high performance business-cars. Mercedes-Benz make such cars.

There has been, for years, a demand for safer and more environmentally-acceptable cars. Mercedes-Benz make cars which are better than others, in meeting this demand.

Today, there is a demand for cars which not only meet these needs, but at the same time consume less energy, to reduce the demand on limited world resources.

Our answer is the new Mercedes-Benz S-class.

By the application of trend-setting technology, it has been possible to improve significantly the relationship between performance and fuel-consumption, without any sacrifice in power. And, although this meets present-day requirements, we believe that, in the interests of our customers, it was necessary to progress even further.

So the new S-class models are the first production cars to consume less energy, whilst offering improved practical benefits and retaining their value over a much longer time.

After six years of development work, the objective has been achieved, by the employment of special, "relief-technology". Relief of pressure on energy resources, by the reduction of wind-resistance and overall weight. Relief of the stress on man himself, by further improvements in safety, ride, equipment and controls, durability and maintenance procedures.

The new Mercedes-Benz S-class sets new trends in benefits, both to the owner and to society.

With its high technology, the new Mercedes-Benz S-class meets the demands of the driver, as never before

In the benefits it offers to its owner, the new S-class represents a further stage of progress. Through technology that consistently reduces the stress on energy resources and on the environment, it also benefits society as a whole, to a degree that has never before been achieved in automotive engineering.

The new formula

Higher performance and greater practical benefits for the driver, with lower consumption of energy and raw materials and less on the environment.

This formula combines hitherto contradictory aspects into an entity with new properties. Properties which are beneficial to the driver and to the public.

Greater benefits for driver and passengers: Higher standards of safety. More comprehensive specification, to make handling easier. More comfortable, to reduce stress. Plentiful reserves of power. Improved economy, because of lower fuel-consumption, better durability and retention of value, less frequent and more simplified servicing.

Greater benefits for everyone: Considerable savings in materials and fuel. Even greater protection against corrosion. Improved protection in the event of an accident. Protection against exterior damage. Further reductions in exhaust-gas emission and noise levels. Everything possible to enable the driver to act responsibly in traffic.

Performance and conservation

This is the first time that a manufacturer has succeeded in making a car more power-

ful yet more economical, both safer and lighter, quieter, easier to maintain and more resistant to corrosion. A true combination of performance and conservation.

The successful integration of contradictory and hitherto virtually incompatible features. This is the character of the new S-class. It is a typical Mercedes-Benz achievement. To approach and to realise ambitious objectives with more commitment, greater conviction and less compromise.

The new S-class creates the basis for the future of the car, no matter how conditions may change. It will influence the engineering and style of many cars. Beyond the nineteen-eighties.

The new upper echelon

There are seven models in the new S-class. The 280 S, 280 SE, 280 SEL, 380 SE, 380 SEL, 500 SE and 500 SEL.

In this brochure, we introduce you to the top models; from the 380 SE, which replaces the 450 SE, to the 500 SEL, which supersedes the 450 SEL 6.9. The 500 SE/SEL are the most exclusive models in the Mercedes-Benz range.





The shape of the new S-class – uncompromisingly functional



Totally integrated and co-ordinated, with a clear, distinct, smooth line. The advance in technology is apparent, even at first glance. Classic elegance which is matched to the logic of its new engineering. Understated styling, with simplification, not enlargement. The shape expresses the significant progress towards easier motoring.

Both computer and wind-tunnel have been used extensively in the design stages. Every panel, every curve, every shape, is specifically designed for the job it has to do. Everything in the bodywork performs its clearly-defined function. Styling determined by long-term objectives, not by short-lived fashion.

New ideas

A good idea is better than the waste of money on excess metal. This is very true when it comes to styling, where every contour should be shaped to meet its pre-determined requirements.

For example, the overall shape. The flow of the line is uninterrupted. The bonnet has a downward slope. The windscreen wipers are fully recessed. The boot-section is higher than the bonnet. In other words, an aerodynamic shape, which also enables the driver to see all four corners of the car and therefore makes driving safer.



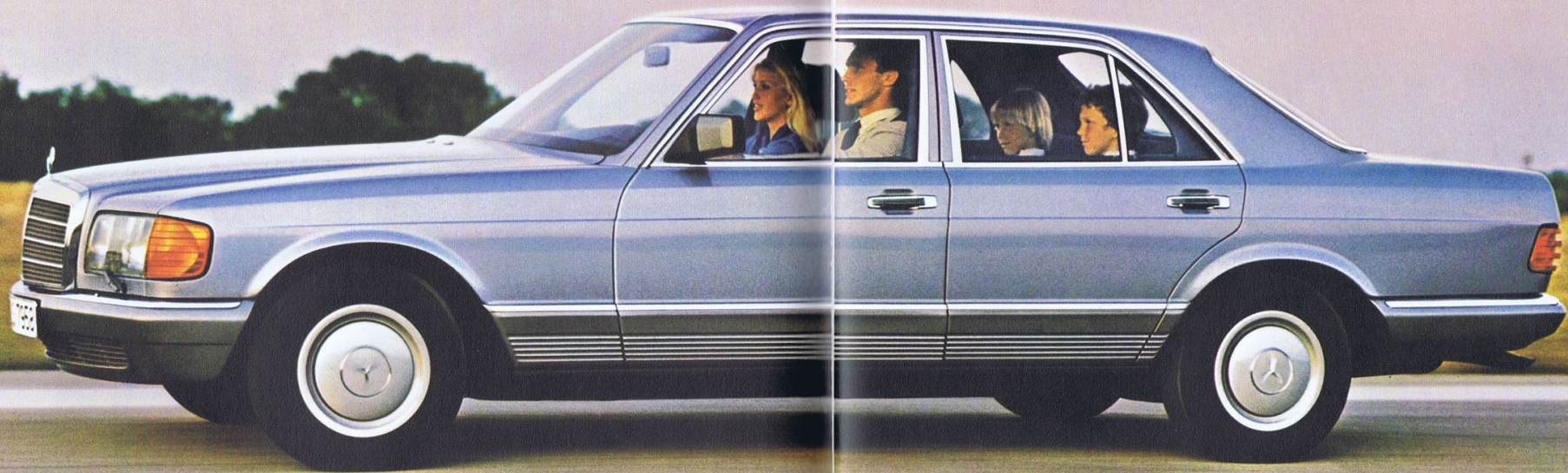
Another example, the bumpers. They are large, and are made of material which is tough, yet flexible. They give better protection and do less damage. Their shape improves the aerodynamic qualities of the car, furthermore, they minimise any tendency for the front axle to lift. Visually, the bumpers give the impression of being continued along the sides of the car, in the shape of deep, protective fibreglass-reinforced mouldings. They prevent minor damage to bodywork and are easily replaced.

Large range of colours

Colour also contributes to the shape and style of the new S-class. There are thirty shades to choose from, eight standard colours, twelve special colours and ten metallic finish-

es. Colours that not only enhance the beauty of the car, but also make it easily seen on the road. The clear visibility of all the colour shades has been established scientifically. Safety values for the various colours can be checked in the Colour and Upholstery leaflets.





The new S-class. As small as they can be and as large as they need to be



The owners' needs, together with the requirements of safety, room to move and minimisation of stress, determine the dimensions and performance of a car.

The new Mercedes-Benz S-class are built for people who use their cars more than the average driver does. People who need to travel longer distances more often. Who are rarely by themselves in their cars and who need their energy and concentration to do

their jobs, rather than to waste it on their way to work.

Space reduces stress

Although the external dimensions of the new S-class are slightly smaller, the space inside is, in fact, larger. The cars are marginally narrower, but the front-wheel track is wider and the wheelbase a little longer. The results are more comfort and even better road-holding.

The large passenger compartment protects the occupants and minimises stress. A lot has been done to make noise-levels even lower.

The suspension system, which was already refined almost to the limits of technology, has been improved even further. Additional active and passive safety features have been incorporated. Even more has been done to keep the driver relaxed yet alert, so driving requires even less effort.



Safety, power, handling, ride and operating controls are a fully-integrated entity in the new S-class. It is the harmony and maturity of the overall design which communicate themselves in the reduction of driver-stress.

New automatic transmission

The 380 SE/SEL and the 500 SE/SEL are fitted, as standard equipment, with a new, four-speed, torque-converter automatic transmission. As part of the new concept, it is smaller, lighter in weight, but more efficient, because the precision and smoothness of gear-changes are further improved.

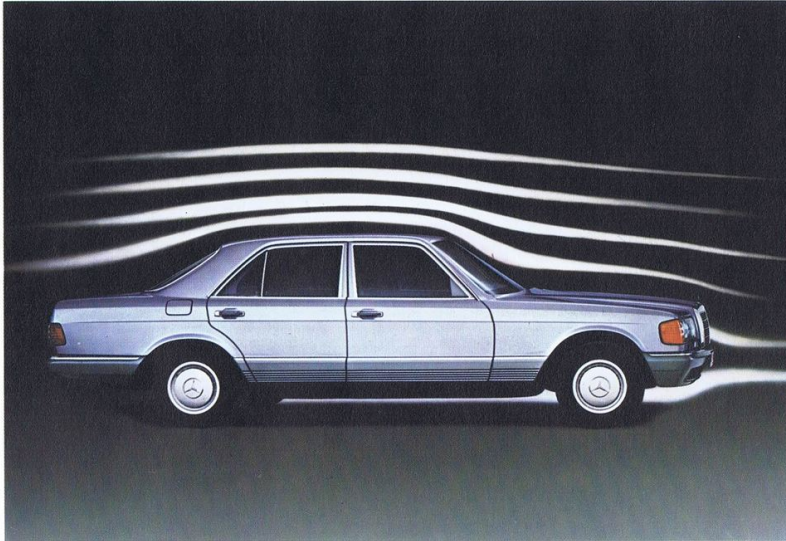
When the car is stationary, the gearbox turns over at the idling speed of second gear. Under acceleration, the gearbox changes down to first gear at the 380 SE/380 SEL and therefore makes maximum torque available for pulling away.

In position D, the transmission changes up at lower road speeds, thus the engine speeds are kept low, with a consequent saving of fuel.

And, when climbing a hill with a trailer, the pulling power is increased, while downhill, better use is made of the engine-braking.



The right body-shape – for higher performance and lower fuel-consumption



The drag coefficient of the new S-class is one of the lowest attainable with modern production saloons.

In a wind-tunnel, it is possible to learn how to reduce wind-resistance to the minimum. Because, the less the wind-resistance, the less power and fuel required to move the car.

Everything possible has been done to reduce wind-resistance in the new S-class. The result of all the long, detailed work is a one of the lowest attainable with modern production saloons.

A saloon car with adequate space for five people must, of necessity, have a relatively large cross-section, but the optimum aerodynamic qualities compensate for this to a considerable extent. The co-efficient of drag is some 14% better than that for the previous models, which was regarded as excellent.

Because of the aerodynamic shape, fuel-consumption in the new S-class is considerably lower, even at modest speeds.

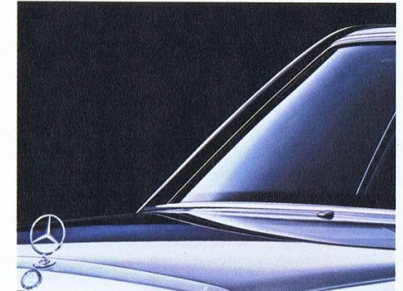
While the drag co-efficient (c_w value) of the majority of production cars is today between 0.47 and 0.50, the c_w value of the Mercedes-Benz experimental car C 111, which was designed exclusively on aerodynamic principles, is just under 0.2. The lowest possible c_w value of a production car is probably around 0.3. The very low drag co-efficient of the new bodywork of 0.36 is one of the lowest attainable with modern production saloons.

Reduced tendency to lift

At higher speeds, especially, the air flow creates a lift-force beneath the car. Overcoming this consumes power; it can also have an adverse effect on road-holding. Mercedes-Benz have solved the problem by using a wedge-shaped profile and by fitting a spoiler under the front of the car. The spoiler diverts air to the sides, preventing the swirling under the car which causes lift. Lift forces at the front axle have thus been considerably reduced and the pressure on the road increased by one-third. A significant improvement in road-holding and stability.

Detailed research produces big results

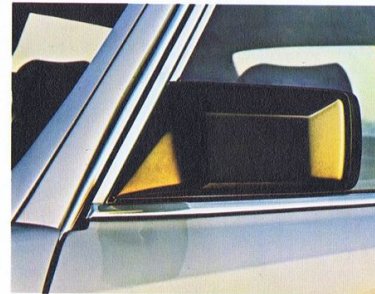
The results of wind-tunnel tests will determine the final shape, and while the aerodynamic result will save energy, it can also produce further benefits. Where air cannot swirl, there is less wind-noise. Components that are properly integrated, recessed or covered in, diminish noise-levels and often improve the aesthetic appearance. Much of the visual appeal of the new S-class is in the smooth shape of its line.



Specially shaped, dirt-deflecting rain runnels

In the course of long, detailed development, one component after another was re-designed, integrated into the lines along which air would flow, and made more efficient.

Water-deflecting mouldings are incorporated into the front roof pillars; they prevent the side windows from becoming dirty. There is no ridge between the roof pillar and the door frame, because the rain channels are recessed. There is no air-trap between the bodywork and the front bumper. The smooth hub-caps are made of Polyamid, and the windscreen, which is more raked, does not have expansion-joints. Even the exterior mirror (adjustable from inside the car) is integrated into the overall aerodynamic shape.



Aerodynamically styled exterior mirror which adjusts from inside the car



Two new engines, for power with economy

The concept of the two new S-class engines is high output, lower consumption, less pollution and reduced noise-levels. Both are made in light alloy.

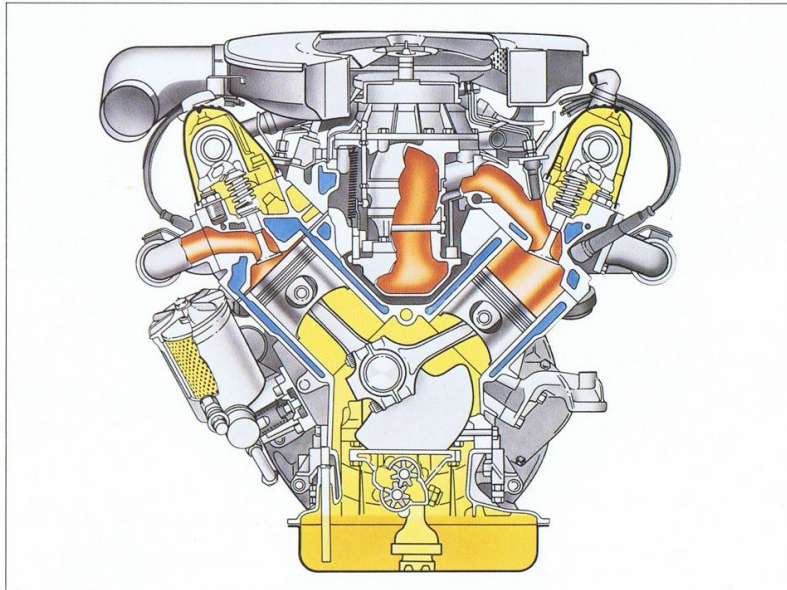
The engine for the 380 SE/SEL is newly developed. A 3.8 litre V8 unit with mechanical fuel-injection, it develops 160 kW (217 DIN/hp) and has a marked improvement in torque. This means more power for acceleration and, in turn, greater safety and better adaptation to every road situation.

Most powerful engine in the S-class is the five-litre V8 in the new 500 SE/SEL models. It has fuel-injection, an output of 177 kW (240 DIN/hp) and especially powerful torque.

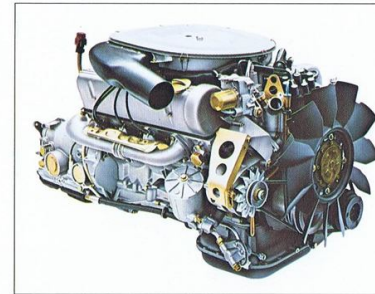
In spite of their power, the new engines weigh less than their predecessors. The new

3.8 litre engine is 40 kg lighter than that of the previous 450 SE, and the five-litre unit is 134 kg lighter than the 6.9 litre engine. Perfect balancing of the crankshaft mass ensures very smooth running and minimum vibration, when idling and at full throttle. At medium speeds, the engines effortlessly build up enough power for normal situations. "Clean" power, without over-complicated engineering. Their performance characteristics create in themselves a fuel-saving driving style. There is always power in reserve.

These two engines have been made-to-measure for the 380 and 500 models. They provide as much power as is needed for high performance and safety in these long-distance cars.



The new eight-cylinder engines develop their power more smoothly than six-cylinder engines of the same cubic capacity



The new light-alloy V8 engines are lighter, more economical and less pollutant

Aluminium engines

The use of aluminium components in engines is nothing new, but the extensive use of light alloy is rare. There are obvious advantages, not only in weight-reduction, but also in its excellent thermal properties – beneficial in terms of efficiency and long life.

One special feature of these engines is that there are no steel cylinder-liners. The pistons do not, however, come into contact with the light-alloy cylinder walls. Very hard silicon crystals are cast into the cylinder walls and these project microscopically after the alloy has been etched back. The pistons move safely on these silicon crystals, which are highly resistant to wear. Mercedes-Benz have applied this technology to large-scale production.

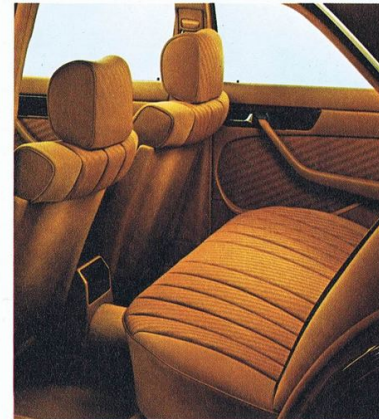
Because of the reductions in weight and of the very low drag co-efficient of 0.36, it was possible to lower the average fuel consumption of all S-class models by 10–12%.







Every possible facility for safe, comfortable motoring



There is plenty of room in the back, and the slightly "stepped" shape of the back of the front seats gives even more knee-room

Every effort is worthwhile, as long as it results in the reduction of driver-stress and in enabling him to concentrate fully on reacting responsibly to road conditions. And, because people who own Mercedes-Benz cars tend to use them far more than other drivers use their cars, the benefits are twice as great. Everything that reduces stress on the driver, and keeps him relaxed and alert, is also a direct contribution towards the safety of everyone else on the road. A driver who is free from stress rarely creates stress in others.

Comfortable seating creates good driving

Firm, yet non-restricting, seats contribute to concentration and relaxed driving. Front seat squabs and backrests give the body good support. The head restraints are firmly padded, but yield on impact. Longer range of forward and backward adjustment for the driver's seat. Height adjustment standard on the driver's seat, an optional extra on the front

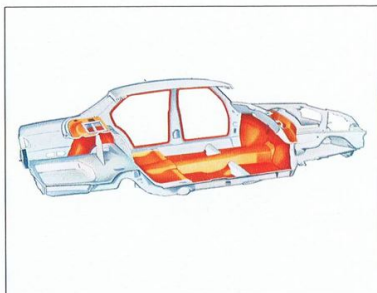
passenger's seat. Hand-wheel within easy reach to adjust angle of backrest.

Rear seats are also anatomically contoured. Above all, plenty of room, even for back-seat passengers with long legs. The slightly "stepped" shape of the back of the front seats gives rear-seat passengers more knee-room. In the long wheelbase versions, the 380 SEL and 500 SEL, rear footwells are 140 mm longer.

High quality seats – through and through

The seats are soft enough to be comfortable, even on long journeys, but firm enough to prevent the transmission of vibrations. They are assembled by hand, from the solid steel spring core, through layers of natural wool and horse hair to the deeply-fluted outer cover. The high wool content of the covers allows the seats to "breathe" and carries away body-moisture. As an alternative to all-fabric covers, you can specify covers of MB-tex, of soft leather or of luxury velours.

New standards of comfort



In addition to new design features, the system of noise absorption was further improved by the use of additional insulating material

To Mercedes-Benz, comfort means much more than just sitting comfortably. It means the analysis of space, interior design, visibility, noise and vibration from the aspects of safety and for the relief of stress for both driver and passengers.

It starts with ease of access, through door-apertures that are now larger. The protective mouldings on the doors cover the door sills and keep them absolutely clean.

Quietness creates relaxation

Double seals all round the doors insulate the interior against road and traffic noise. Further noise-insulation by improved seals on windows, plastic-foam filled rear roof pillars and newly-designed extraction channels for stale air.

In addition, there are many features to reduce or eliminate noise, such as an additional panel between the engine and the passenger compartment. The speedometer drive is electric, so even that is silent. Measurements of noise-levels have shown that you can carry on a normal conversation inside the car at top speed.

Comprehensive equipment

The new S-class cars are equipped to a standard higher than that of other top-class international cars.

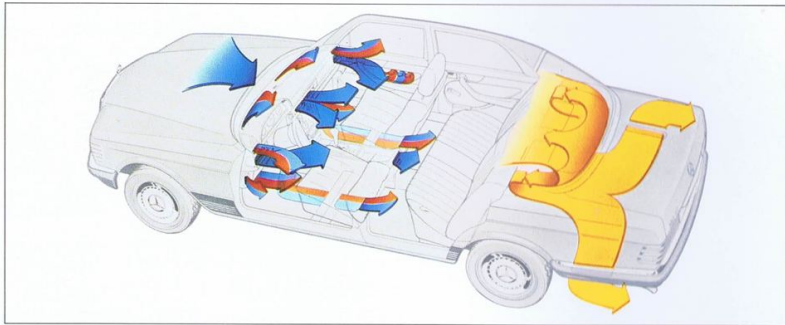
For example, in addition to the two large padded sun visors, there is a third, smaller, one in the centre, behind the adjustable rear-view mirror. A low sun no longer dazzles the driver.

There is a choice of eight new upholstery colours for the somewhat larger interior, six colours for the upper part of the fascia, and three for the new roof-lining – which looks like linen. Tasteful colour combinations create a calm, pleasant atmosphere.

And when you get out of your car at night, this is signalled to the traffic behind you by reflectors in the edges of the doors. As an optional extra, you can have lamps fitted which illuminate the ground when the doors are opened.



Temperature control – to the degree you prefer



New ventilation system with separate fresh-air inlet for rear-seat passengers

Many people do not appreciate the influence that the temperature inside a car can have on the driver. The superb Mercedes-Benz heating and ventilation system is the answer to this problem. For the new S-class, it has been completely re-developed.

The most significant advantage of the system is the freedom to adjust the temperature accurately and independently for the left and right-hand sides of the car. Because the best temperature is the one that meets exactly the requirements of the occupants. This adjustment is provided by an electronically-controlled system, the Mercedes-Benz "Heatmatic".

Driver and front passenger can each select the temperature they require, using their own control. When the heating is on, they can choose any setting from 16°C to 32°C (60° to 89°F). A thermostat measures the temperature inside the car and tells the regulator how much warm air is needed to reach the required level. Once the desired temperature has been reached, it is maintained, regardless of any change in outside conditions.

For ventilation, there is an air-volume control with a four-stage booster and a distribution control. Logically-positioned air inlets ensure adequate, draught-free, continuous warm or fresh air. Rear-seat passengers have their own adjustable supply of warm or fresh air. To maintain air-pressure at a constant level inside the car, stale air is extracted through apertures in the rear parcel-shelf via channels to the lower sides of the boot. Advantages are that the air outlets are in the area behind the bumpers, where there is little suction, thus avoiding unpleasantly low air-pressure inside the car. Non-return flaps eliminate the possibility of exhaust-gases getting into the car.





A comprehensive system to minimise stress

In the new Mercedes-Benz S-class, the driver has less work to do, he is, therefore, better able to control the car properly, whatever the conditions.

Minimisation of stress starts with good visibility. Large windows give an excellent view, all around the car, virtually unimpaird by the narrow, yet sturdy, roof, pillars. The driver can see everything that is going on around him, and consequently, is able to show consideration for others. Long wiper-blades, which sweep 77% of the screen, an improvement of some five per cent. Light beams are more concentrated, so the headlamps have a long range, without dazzling oncoming traffic. Rearward view, too, is further improved. On the driver's side, a rear-view mirror that is adjustable from inside the car. As an optional extra, an electrically-adjustable mirror on the near side.

On the fascia, all the instruments and controls are clearly positioned, so that they cannot be confused with each other. Instruments can be read at a glance, day or night. All controls are designed and arranged so that the driver quickly gets used to them, so that mistakes are very unlikely. This is true of the multi-function combination switch on the steering column, which operates the three-speed wipers, screen washer, headlamp flasher and dipswitch. It is true of the light switch, which cannot be confused with anything else, and of the lever close to it, for pneumatic adjustment of the headlamps, and of the new-type parking-brake release and the glove compartment lock, which is now on the end of the flap, so as to be more accessible for the driver.

Two practical aids can make driving even easier and save more energy. Tempomat (cruise control), an optional extra which keeps the car at a pre-set speed, until the driver chooses to cancel or change it. And

the fuel-consumption trend indicator (standard equipment) which helps to check whether one is driving within the best fuel-consumption range.

All the information one needs

The instruments in the new S-class provide all that a driver needs to know; to be in control, to be safe yet relaxed.

Unnecessary instruments have been omitted, deliberately, because they could distract the driver, rather than inform him.

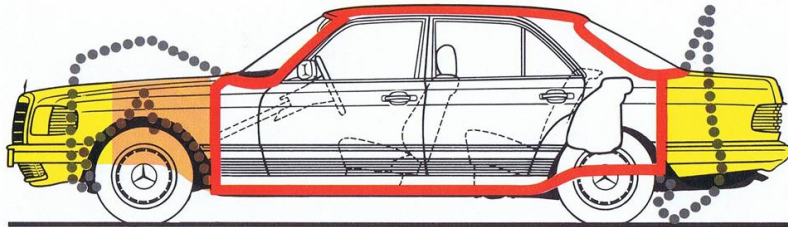
The third dimension of safety

In addition to the safety-equipment for the occupants of the car and for other road-users, there are now a number of provisions towards the third dimension of safety. Protection against theft. These include new locks, with a multi-profile key, recessed locking-pins on the inside of the doors and other features which are, for reasons of security, not published in detail.

A new central-locking system has also been developed for the new S-class. It operates on the dual-pressure principle, which means it is relatively simple, but very reliable. It is standard equipment on the 500 SEL.



The safety system in the new S-class. Even more protection for you, and for other people



The longer crumple zone, incorporating progressive degrees of rigidity, gives the greatest possible protection. This safety system is new in automotive engineering

Helping the driver to avoid accidents. Compensation, at least to some extent, for any slight error that a driver may make, in an unexpected situation. Protection for the occupants, should an accident happen. These are the functions of the active and passive safety features in every Mercedes-Benz car.

Good handling characteristics are the principal factors in active safety. Light, yet positive steering, straight-line stability, no excessive tendencies towards oversteer or



understeer in corners, a responsive engine, a suspension system that keeps the wheels on the road. The car does not break away suddenly when the limits of adhesion are reached. Instead, it starts to drift gradually, so the driver is warned in good time. Brakes are not susceptible to fade, even under continuous

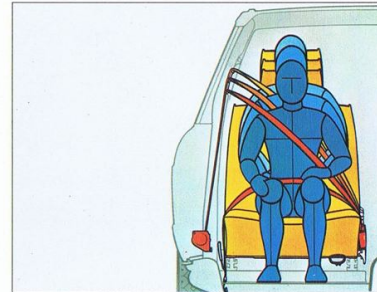
hard use, their bite is powerful and even, they do not grab.

All of these features, carefully co-ordinated with each other, are characteristic of the new S-class.

All-round protection

The passive-safety features have been further developed and integrated into an even more efficient system. At the front, the impact-absorbing zone is longer, the lateral and longitudinal members in the frame have been re-positioned and the latter now extend right to the rear of the car. Better impact-protection than ever before. This is how it works. The front section gives protection against the effects of impacts in three progressive stages (as illustrated above). The first zone yields most easily; in the event of an accident it also protects the other – perhaps lighter – car from excessive damage. The second zone, the engine area, offers increasing resistance to deformation and the third zone, the passenger safety-cell, has a very high degree of rigidity.

This has been proved to work effectively in numerous crash tests and detailed calculations.



The safety belts on the front seats can be accurately adapted to the occupants' height

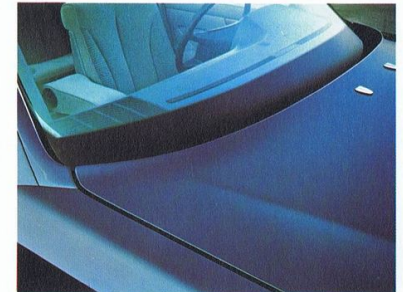
The roof pillars combine with the front section of the roof itself into an integrated unit which is very strong, should the car roll. Floor and sides are particularly rigid. Roof pillars, door frames, doors, hinges and locks form an integrated protective shield which prevents excessive distortion in the event of a lateral impact, as well as avoiding jamming of the doors. The fuel-tank is located in the well-protected area over the rear axle. It is firmly anchored and there is a bulkhead between it and the passenger compartment.

Protection for people

Examples of this are the safety steering and the new seat-belt system. Because of the deformable steering-wheel rim and the impact-absorber underneath, the likelihood of injury to the driver in the event of an impact is considerably reduced. Impacts on the steering from the front are absorbed by a corrugated section in the steering column, which telescopes or buckles sideways.

The three-point, inertia-reel seat belts on the front seats are adjustable, so that they can be adapted to the height of the occupant.

The lower anchorage points are located on the seats, ensuring that the lap-belts are always in the right position.



Recessed windshield wipers reduce the injury hazard in the event of pedestrians, cyclists, etc. being involved in an accident

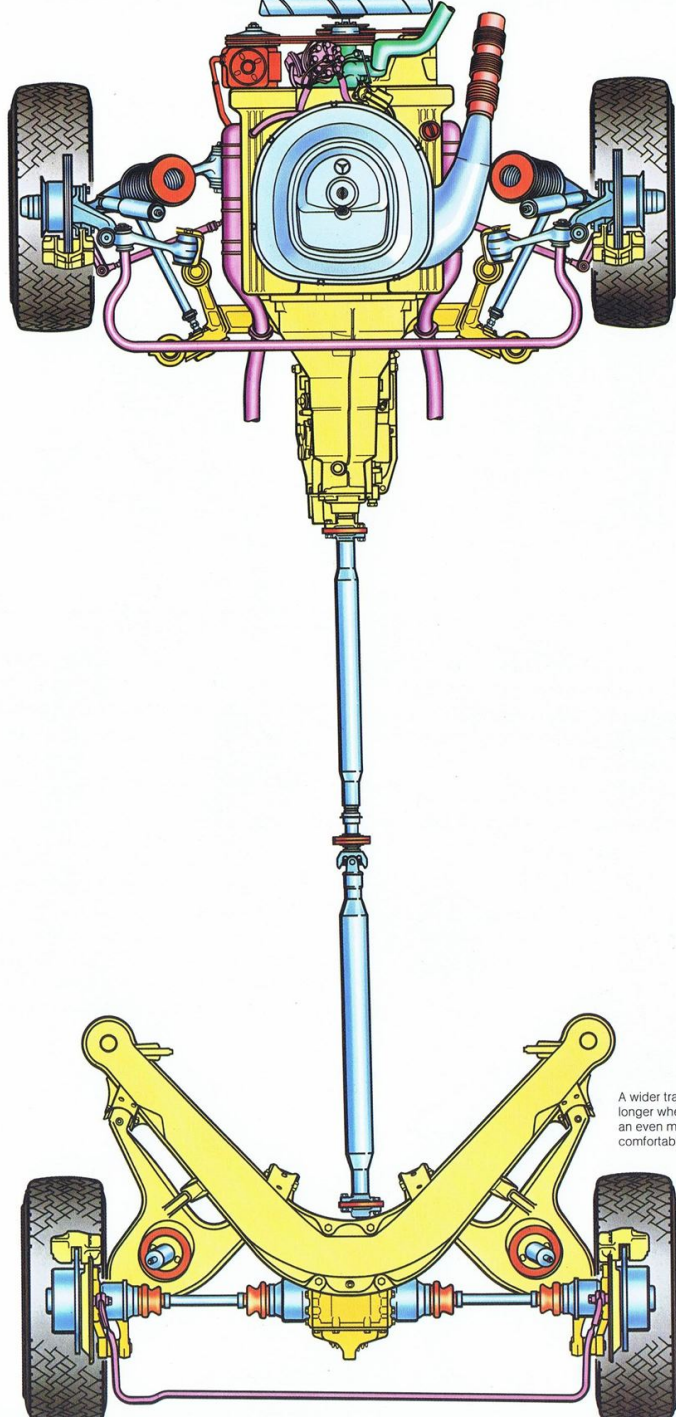
Protection for other people

In the new S-class it is even easier to see and to be seen. There is a control on the fascia for pneumatic adjustment of the powerful headlamps, so it is easy to be courteous to other road users. Wipers sweep a large area of the windshield, rain and dirt are diverted away from side windows, rain-channels all round. And large, clearly-visible rear-lamp units, which get less dirty, due to their ribbed profile. The large bumpers front and rear yield on impact, they are fibreglass-reinforced, and mounted on flexible brackets. Their large area reduces injury-hazards. Being Flexible, they can absorb minor impacts and return to their original shape.

Windscreen wipers are fully recessed, as a protection against injury to pedestrians and cyclists.

The standards of safety in the new S-class are superior to those of any other car.





A wider track and a longer wheelbase give an even more comfortable ride

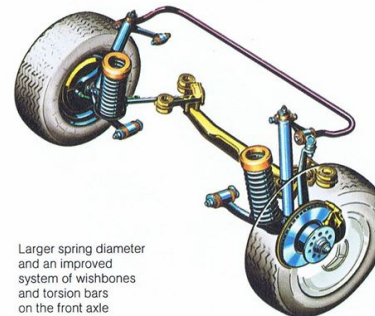
Comfort makes the car safer and safety makes it more comfortable

In the S-class, the suspension system had already been perfected to a degree that made further improvements difficult. There were, therefore, only two major areas in which Mercedes-Benz engineers worked towards further refinement in the development of the new S-class. These were the ultimate perfection of wheel suspension and location and further reductions in noise-levels and vibrations.

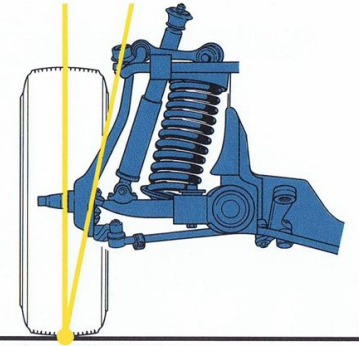
In both areas, the objectives have been achieved. By enlarging the diameter of the front coil-springs and by re-matching all the mountings between the suspension and the bodywork, by improving the system of wishbones and torsion bars. Wide track, long wheelbase, zero-offset steering. The harmonisation of all suspension, damping and wheel-location elements has resulted in ride-characteristics that cannot be improved by conventional methods.

Further development of steering and braking systems

Extremely precise power-assisted steering is standard equipment on all S-class models. It transmits an accurate "feel" of the road, at all speeds, so steering is effortless.



Larger spring diameter and an improved system of wishbones and torsion bars on the front axle



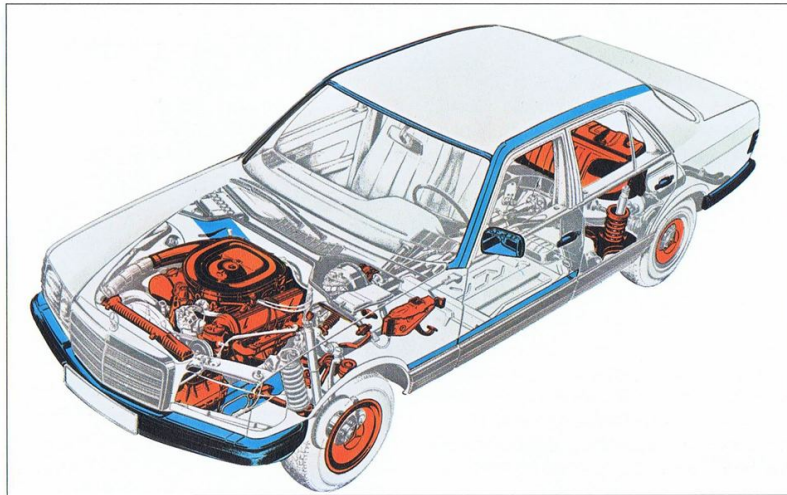
Zero-offset steering on the front axle

The servo-assisted, dual-circuit, four-disc braking system too, has been further improved to match the increase in performance. The wear-capacity of the front brake pads has been increased by 30%. Wheels have ventilation rings to dissipate heat more quickly.

Elimination of noise and vibration

It is better to eliminate noise and vibration at source, rather than absorbing it by the use of insulation. The levels of noise and vibration have again been drastically lowered by refining the design of the propeller shaft, anti-roll bar, axles and other components.

The new S-class cars are lighter. Tougher. Safer. And more economical



In spite of reductions in weight by up to 280 kg, active and passive safety features have been further improved

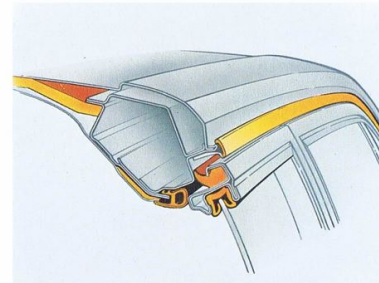
Mercedes-Benz will never, for the sake of energy conservation, compromise their standards of strength, safety and stress-relief for the driver. In numerous computer analyses, bench tests and road trials, we have succeeded in the incorporation of a combination of new materials and new technologies which in the new S-class reduce weight whilst increasing strength and safety.

Weight-savings are between 50 and 280 kg, according to the model.

The 380 SE, for example, weighs 135 kg less than the previous 450 SE. The new 500 SEL is no less than 280 kg lighter than the 450 SEL 6.9. The less the weight, the less fuel needed to move the car.

Reversing the trend

Mercedes-Benz have succeeded in reversing the apparently irrevocable concept that higher quality, greater safety and better comfort must result in more weight and, thus, higher fuel-consumption. This reversal has been made possible by a new combination of the four basic materials used in car construction, standard steel, high-tensile steel, light alloy and plastics. They have all been used for some time; it is the way they are combined that is new.

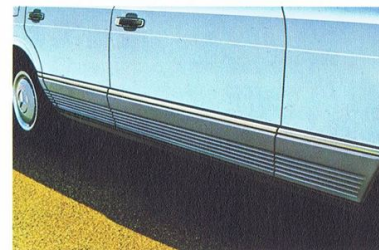


Reductions in weight through the use of high-strength sheet metal and special profiles

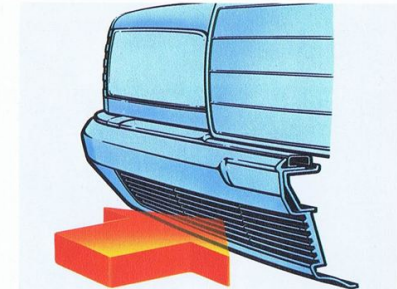
The right choice is vital

Only accurate calculations can determine which material is best for each individual component. Standard steel is still mostly used for the load-bearing and safety-related parts of the car. But the way it is shaped can have a great influence on its strength.

The roof pillars, made of pressed steel, are small in cross-section; by being welded in, they gain extra strength. Steel panels are also made stronger, without extra weight, by the inclusion of additional profiles.



Protective side mouldings made of high-strength plastics



Flexibly mounted bumpers absorb impacts at speeds up to 4 km/h without the bodywork being damaged

High-tensile sheet steel is stronger than conventional steel, so it can be thinner, saving in material and weight. It is used for floor and body panels.

Energy-saving technology

In other areas, savings in weight and energy demand greater technological effort. Improvements in wind-resistance and weight, and in efficiency, can be gained by using components made in plastics, such as the flexible bumpers, the protective side mouldings and the aerodynamic hub-caps. On the other hand, however, the manufacturing process becomes more complex.

The use of aluminium also provides benefits. Not only the engines of the 380 SE/SEL and the 500 SE/SEL are made of light alloy. But also the gearbox housing, bulkheads and partitions, the rear seat frame and numerous strengthening members. And also the parking brake release foot pedal and the frame of the exterior rear-view mirror.

Mercedes-Benz quality, for reliability and durability



The totally-balanced integration of all technical features is the basic concept of the new S-class.

A powerful engine will not be impressive for long, if the car has inefficient brakes. Over-soft seats cannot compensate for suspension that is too hard. It is only the accurate balancing of all components that creates a car in which the driver feels relaxed, and safe. And accurate balance can sometimes determine things even more decisive than mere impressions.

One reason for the unique, balanced integration of a Mercedes-Benz is the quality of design, materials and workmanship. Quality cannot be achieved by checking-over a car after it is made. If quality is to have any meaning, then it must begin with the correct basic concept for every part and component; it

must be continued through the design and must be proven under arduous testing. Specification – and checking – of material is as indispensable as good workmanship, which must also be continuously checked. The success of the marque, and our customers' loyalty to it, are justification of the Mercedes-Benz methods.

Durability

The new S-class cars will last even longer, thus their value-retention will be further improved. By, for example, additional protection against corrosion. Aluminium and plastic components that do not rust. Parts which are subjected to the most wear are made in zinc-coated steel. Hollow sections which become inaccessible after assembly receive a coating of adhesive wax with special "creeping" properties. Plastic liners are fitted under the front wheel arches as protection against damage by salt and stones. A protective coating on all front sections susceptible to damage from gravel, etc. The underside of the floor is coated with a lighter, but highly resistant material.

The exhaust system is quieter,
and it lasts longer

Efficiency and durability of the exhaust system have been generally improved. The pipes between the silencers are now made in high-grade steel. To reduce noise, the effective volume of the twin-pipe system has been enlarged.

Servicing, too, means safety
and value-retention

The new S-class cars are even easier to maintain, service intervals are longer, and repairs cost less.

For example, brake master cylinder, battery, relays and fuses protected in a compartment under the bonnet. Oil filter, all light bulbs, booster, cooler and piping of the heating system are readily accessible or easily removed. Panels can be repaired individually, especially at the front, to save cost. Front

wings are bolted on. Longitudinal profiles divide the roof into sections, to reduce the amount of re-spraying, should it be necessary.

Longer service intervals

First service now between 1000 and 1500 km (600–900 miles). Major service only once every 20,000 km (12,500 miles). Proof of reliability, and a contribution to economy.

Servicing can be carried out by any one of 1200 dealers in Germany, there are 5000 service points world-wide. High quality workmanship and rigorous inspection. Today, it is impossible to put more quality into a car.



Six years of development, ninety-three years of experience



The new S-class was a mature car, even before the first one came off the assembly line. Because before that, production had already been tested on a pilot production line. Assembly of the car was "rehearsed", until every job was mastered to perfection, until every part fitted, until every possible error, every inaccuracy, had been eliminated. It was only then that the car was released for series production.

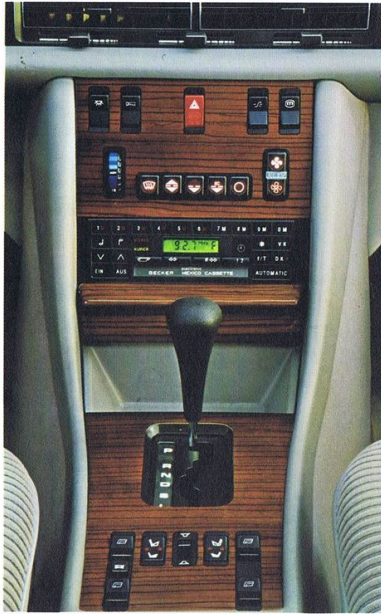
All the experience is already there

Whatever it may meet in the future, the new S-class has already coped with it before. Six years of development. Countless trials and tests to destruction. Repeated examination of every part. In testing, it has already covered three million kilometres. Under condi-

tions more strenuous than it will ever encounter in normal use.

The engine, and all the other components, have had to withstand temperatures down to -40° and still operate without problems. They had to perform equally well in tropical heat. As well as all this, they were subjected to exhaustive trials on the test bench. Here, they were treated ruthlessly, because man's physical endurance was no longer a limiting factor.

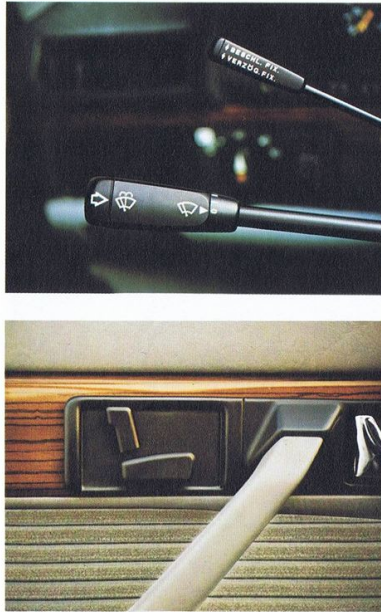
Optional equipment



On the centre-console of the new S-class are the clearly-marked controls for a number of items of standard equipment. Among them are Heatmatic, the heating and the booster-fan. There is also room for optionally-extra equipment, such as the temperature control system or air conditioning. The units create highly efficient heating or cooling, with a minimum of adjustment.

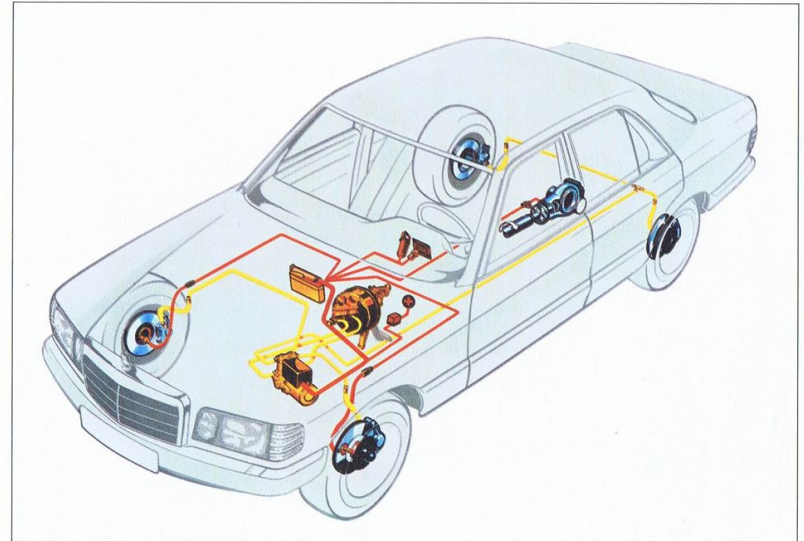
The new-type digital radio, with pre-selection for the traffic-news decoder, and controls for the electrically-operated windows can also be fitted here.

In combination with the new automatic transmission, Tempomat (cruise control) will maintain accurately the pre-set road speed.



Electric seat adjustment. By operating a switch on the inside of the front doors, the front seats can be adjusted in various directions, and thus to the best individual position. The seat can be moved forwards and backwards, up and down, and tilted; the seat back is also adjustable.

To meet the individual demands of as many Mercedes-Benz drivers as possible, a comprehensive range of optionally-extra items is available. The advantage is that in the new S-class cars, these have already been considered at the design stage, and provision made for their installation.



Car fitted with the anti-lock braking system (ABS)

They can be smoothly integrated into the car. All items have been developed by, or in co-operation with, Mercedes-Benz. They meet our demands in quality and reliability.

This is especially true of the anti-lock braking system (ABS). Irrespective of road conditions, it prevents locking of the wheels under hard braking, for example, when the driver meets an unexpected situation. In this way, steering response is retained even while braking.

Comprehensive range

There is a wide range of other optional extras. Heating for all seats, new central-locking system, all doors, boot and fuel filler-cap being locked when the driver's door is locked. (Standard on 500 SEL). Orthopaedic back-

rest that is adjustable for height. Light-alloy wheels. Headlamp wash/wipe units. Self-levelling suspension, for use with trailers or when heavy loads are carried. You can choose between upholstery in MB-tex, velours or leather. An electrically-adjustable rear seat is available for SEL (long wheelbase) versions. The 380 SEL and the 500 SEL can be fitted with hydropneumatic suspension which keeps the car at a constant level, irrespective of load, with manual adjustment of ground clearance.

Mercedes-Benz 380 SE/380 SEL.
Their performance makes them unique



With the full range of benefits of the new S-class and the fuel-injected 160 kW (218 DIN/hp) V8 engine, the Mercedes-Benz 380 SE/SEL represent comprehensively-equipped, safe, powerful executive saloon cars for the international market.

Because they are engineered for the future, whilst meeting the demands of today, and because they are reliable and durable, they set new standards for this category of car, for more than the next decade.



Mercedes-Benz 380 SE/SEL. Basic equipment

Engine

Aluminium fuel-injected V8 engine, contactless transistorised ignition and hydraulic valve clearance compensation. 160 kW at 5500/min, 218 DIN/hp at 5500 rpm.

Transmission

Four-speed torque-converter automatic transmission with floor-mounted selector lever. Optional extra: Tempomat (cruise control).

Axles

Front axle with upper wishbones in forged light alloy, and lower wishbones in forged steel, anti-dive control, zero-offset steering; Rear axle: Mercedes-Benz diagonal swing axle with brake torque compensation. Optional extra: self-levelling suspension.

Brakes

Dual-circuit servo-assisted braking system; disk brakes front and rear, internally ventilated at the front; turbo blades for additional cooling on all four wheels; parking brake with additional brake shoes and brake drums; brake-failure warning light for both circuits; brake pad wear indicator. Optional extra: ABS (anti-lock braking system).

Suspension

On both front and rear axle, two coil springs and one anti-roll bar, two double-acting gas-pressure shock absorbers. Optional extra on 380 SEL: hydropneumatic suspension, adjustable for ground clearance.

Steering

Accurate power-assisted steering; steering damper, large padded steering wheel boss; impact absorber under the padded boss; deformable safety steering column; steering box located well behind the front axle.

Bodywork

Frame-floor unit firmly welded to the body; zinc-coated sheet steel; plastic-lined wheel arches; an extremely rigid, torsion-resistant passenger compartment (safety cell); fuel tank located over the rear axle; impact-energy absorbing front and rear sections; crumple zones with progressive degrees of rigidity; flexibly-mounted, fibreglass-reinforced bumpers; protective fibreglass-reinforced side panels to prevent damage to the bodywork; wax coating on hollow members. Maximum all-round vision; panoramic safety-glass windows; four doors; separate compartment for relays, fuses, etc. Optional extra: electrically operated sliding roof with integral draught deflector.

Seats

Anatomically contoured seats, shaped to give lateral support; seat springing adjusted to vehicle suspension and seating position; driver's seat adjustable for height, fully reclining front seats, adjustable forwards and backwards, firmly anchored; three-point inertia-reel safety belts in front, adjustable for height to three positions, and on the outer rear seats; centre rear seat with lap belt. Safety head restraints on the front seats. Optional extras: height adjustment on front passenger seat, or electrically adjustable front seats. Optional extra on 380 SEL: electrically adjustable rear seat.

Windows

Laminated safety-glass windscreen; screen washer; two-speed windscreen wipers with intermittent control, operated by the combination switch on the steering column. Heated rear window.

Heating and ventilation

Continuous, draught-free warm or cold air flow. Automatic heating adjustment (Heatmatic). Air distribution to windscreen, side windows, front footwells, and separate air supply to the rear. All air inlets are individually adjustable. Heating separately controlled for right and left sides. Large fresh-air inlet in the centre of the fascia, with wide range of adjustment. Front doors integrated into heating and ventilation system. Continuous air extraction. Optional extras: air conditioning or temperature control system.

Signalling system

Headlamp flasher; self-cancelling indicators with fingertip contact for overtaking, operated by the combination switch on the steering column; high-frequency horn; brake lights, hazard warning lights.

Lighting system

Parking lights, headlamps with asymmetric halogen low beams and halogen high beams, halogen foglamps; warning buzzer when headlights are not switched off; pneumatic headlamp adjustment for laden or unladen car; side lights, reversing lights, rear foglight; variable instrument illumination; boot light, interior lights over windscreen and in the rear; illuminated ashtray, glove compartment and heater controls. Reflectors on all doors. Optional extra: entry lights in lower edges of doors.

Instruments

Dashboard padded, yields on impact; speedometer; rev-counter; gauges for oil pressure, fuel, coolant temperature. Fuel consumption trend indicator. Indicator lights for parking brake, battery, indicators, high beam and fuel reserve; crystal-controlled clock; mileage recorder, daily mileage recorder.

Locks

Safety locks on all doors, safety locking knobs, child-proof locks on the rear doors, boot lock; steering-wheel lock combined with ignition lock, starter and starter non-repeat unit; master key for doors, ignition lock, boot lock, fuel tank and glove compartment; second key for doors, ignition lock and fuel tank only. Optional extra: central-locking system.

Miscellaneous

Wood-veneered dashboard and centre console; oddments tray between the front seats; pockets on the front doors; rear parcel shelf; rear-view mirror, adjustable to anti-glare position; exterior mirror adjustable from inside the car (optional extra: electrically adjustable nearside mirror); three padded sun visors, with vanity mirror on passenger's side; grab handles on roof frame; padded armrests with grab handles on the doors; centre armrest between rear seats; cigar lighter; ashtrays front and rear; fitted carpets in passenger compartment and boot; towing lugs front and rear; warning triangle; first-aid kit recessed into parcel shelf.

The data included in this brochure are to be regarded as approximate.

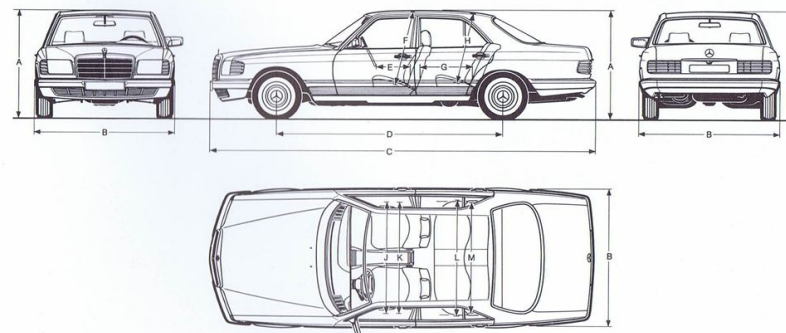
The illustrations include optional extras which do not form part of the standard equipment.

Mercedes-Benz 380 SE/SEL. Technical data

Number of cylinders	8
Bore/stroke	92/71.8 mm
Total displacement	3818 cm ³
Engine output DIN ¹⁾	160 kW at 5500/min 218 DIN/hp at 5500 rpm
Max. torque DIN ¹⁾	305 Nm at 4000/min 31.1 mkp at 4000 rpm
Compression ratio	9.0:1
Engine oil capacity max./min.	7.5/5.5 litres
Capacity of cooling system	12.5 litres
Generator	14 V/70 A
Battery	12V/66 Ah
Max. speed	approx. 215 km/h
Tyres	205/70VR14
Fuel	premium (DIN 51600)
Fuel consumption DIN 70030 ²⁾	
City driving cycle	18.9 litres/100 km
at 90 km/h	11.1 litres/100 km
at 120 km/h	13.3 litres/100 km
Tank capacity incl. reserve	approx. 90 litres approx. 12.5 litres

	380 SE	380 SEL
A Overall height at kerb weight	1436 mm	1440 mm
B Overall width	1820 mm	1820 mm
C Overall length	5000 mm	5140 mm
D Wheelbase	2935 mm	3075 mm
E Steering wheel – driver's seat backrest ³⁾	477 mm	477 mm
F Seat height, front ⁴⁾	979 mm	981 mm
G Driver's backrest – rear seat backrest ³⁾	704 mm	844 mm
H Seat height, rear ⁴⁾	943 mm	944 mm
J Width at hip level, front	1432 mm	1432 mm
K Width at shoulder level, front	1428 mm	1428 mm
L Width at hip level, rear	1468 mm	1468 mm
M Width at shoulder level, rear	1416 mm	1416 mm
Track width, front	1545 mm	1545 mm
Track width, rear	1517 mm	1517 mm
Turning circle diameter	appr. 11.80 m	appr. 12.26 m
Boot space	appr. 500 litres	appr. 500 litres
Kerb weight ⁵⁾	1595 kg	1615 kg
Perm. gross weight	2115 kg	2135 kg

Trailer load: Legislation varies in different countries. Local dealers will be pleased to give you full information.



¹⁾ The output given in DIN (kW or hp) is effectively available at the clutch for driving the vehicle, any other power consumption has already been deducted.

²⁾ Fuel consumption acc. to DIN 70030, part 1, July 1978 edition. The fuel consumption figures stated have been determined by using a

standardized test procedure. This procedure comprises – rig testing with a simulated urban cycle; – tests on a test rig or on a dry level road with test speeds of 90 km/h and 120 km/h. This gives potential purchasers a basis for comparing different types

of vehicles. The fuel consumption figures obtained in normal operation will differ from those determined by this standardized procedure, depending on the driving style, road and traffic conditions, environmental factors, and the condition of the vehicle.

³⁾ Measurements vary according to seat position.

⁴⁾ Without sliding roof.

⁵⁾ The figure for kerb weight applies to standard specification cars. Extra equipment can increase the weight.

The information given in this brochure should be regarded as approximate.

Mercedes-Benz 500 SE/500 SEL
Contemporary representatives of a new international
top-quality class of cars



The Mercedes-Benz 500 SE/SEL are the top models in the new S-class, and, therefore of the Mercedes-Benz saloon range.

The powerful output of the fuel-injected V8 engine (177 kW, 240 DIN/hp), the best possible aerodynamic shape, advanced engineering and the comprehensive range of stress-relieving comfort features, shape the character of this top-class car.

The special value of the 500 SE/SEL lies, on one hand, in the way engineering problems have been solved, and on the other, in their suitability for sensible understatement. Their balance of performance and energy-utilisation, furthermore, proves the contribution they can make towards overcoming current problems.



Mercedes-Benz 500 SE/SEL. Basic equipment

Engine

Aluminium fuel-injected V8 engine, contactless transistorised ignition and hydraulic valve clearance compensation. 177 kW at 4750/min, 240 DIN/hp at 4750 rpm.

Transmission

Four-speed torque-converter automatic transmission with floor-mounted selector lever. Optional extra: Tempomat (cruise control).

Axles

Front axle with upper wishbones in forged light alloy, and lower wishbones in forged steel, anti-dive control, zero-offset steering; Rear axle: Mercedes-Benz diagonal swing axle with brake torque compensation.

Brakes

Dual-circuit servo-assisted braking system; disk brakes front and rear, internally ventilated at the front; turbo blades for additional cooling on all four wheels; parking brake with additional brake shoes and brake drums; brake-failure warning light for both circuits; brake pad wear indicator. Optional extra: ABS (anti-lock braking system).

Suspension

On both front and rear axle, two coil springs and one anti-roll bar, two double-acting gas-pressure shock absorbers. Optional extra on 500 SEL: hydropneumatic suspension, adjustable for ground clearance.

Steering

Accurate power-assisted steering; steering damper, large padded steering wheel boss; impact absorber under the padded boss; deformable safety steering column; steering box located well behind the front axle.

Bodywork

Frame-floor unit firmly welded to the body; zinc-coated sheet steel; plastic-lined wheel arches; an extremely rigid, torsion-resistant passenger compartment (safety cell); fuel tank located over the rear axle; impact-energy absorbing front and rear sections; crumple zones with progressive degrees of rigidity; flexibly-mounted, fibreglass-reinforced bumpers; protective fibreglass-reinforced side panels to prevent damage to the bodywork; wax coating on hollow members. Maximum all-round vision; panoramic safety-glass windows; four doors; separate compartment for relays, fuses, etc. Optional extra: electrically operated sliding roof with integral draught deflector.

Seats

Anatomically contoured seats, shaped to give lateral support; seat springing adjusted to vehicle suspension and seating position; driver's seat adjustable for height, fully reclining front seats, adjustable forwards and backwards, firmly anchored; three-point inertia-reel safety belts in front, adjustable for height to three positions, and on the outer rear seats; centre rear seat with lap belt. Safety head restraints on the front seats. Optional extras: height adjustment on front passenger seat, or electrically adjustable front seats. In 500 SEL: velours upholstery; luggage nets on front seat backrests. Optional extra on 500 SEL: electrically adjustable rear seat.

Windows

Laminated safety-glass windscreen; screen washer; two-speed windscreen wipers with intermittent control, operated by the combination switch on the steering column. Heated rear window. In 500 SEL: electrically operated windows.

Heating and ventilation

Continuous, draught-free warm or cold air flow. Automatic heating adjustment (Heatec). Air distribution to windscreen, side windows, front footwells, and separate air supply to the rear. All air inlets are individually adjustable. Heating separately controlled for right and left sides. Large fresh-air inlet in the centre of the fascia, with wide range of adjustment. Front doors integrated into heating and ventilation system. Continuous air extraction. Optional extras: air conditioning or temperature control system.

Signalling system

Headlamp flasher; self-cancelling indicators with fingertip contact for overtaking, operated by the combination switch on the steering column; high-frequency horn; brake lights, hazard warning lights.

Lighting system

Parking lights, headlamps with asymmetric halogen low beams and halogen high beams, halogen foglamps; warning buzzer when headlights are not switched off; pneumatic headlamp adjustment for laden or unladen car; side lights, reversing lights, rear foglight; variable instrument illumination; boot light, interior lights over windscreen and in the rear; illuminated ashtray, glove compartment and heater controls. Reflectors on all doors. Optional extra: entry lights in lower edges of doors.

Instruments

Dashboard padded, yields on impact; speedometer; rev-counter; gauges for oil pressure, fuel, coolant temperature. Fuel consumption trend indicator. Indicator lights for parking brake, battery, indicators, high beam and fuel reserve; crystal-controlled clock; mileage recorder, daily mileage recorder.

Locks

Safety locks on all doors, safety locking knobs, child-proof locks on the rear doors, boot lock; steering-wheel lock combined with ignition lock, starter and starter non-repeat unit; master key for doors, ignition lock, boot lock, fuel tank and glove compartment; second key for doors, ignition lock and fuel tank only. Central-locking system standard on 500 SEL, optional extra on 500 SE.

Miscellaneous

Wood-veneered dashboard and centre console; oddsments tray between the front seats; pockets on the front doors; rear parcel shelf; rear-view mirror, adjustable to anti-glare position; exterior mirror adjustable from inside the car (optional extra: electrically adjustable nearside mirror); three padded sun visors, with vanity mirror on passenger's side; grab handles on roof frame; padded armrests with grab handles on the doors; centre armrest between rear seats; cigar lighter; ashtrays front and rear; fitted carpets in passenger compartment and boot; towing lugs front and rear; warning triangle; first-aid kit recessed into parcel shelf.

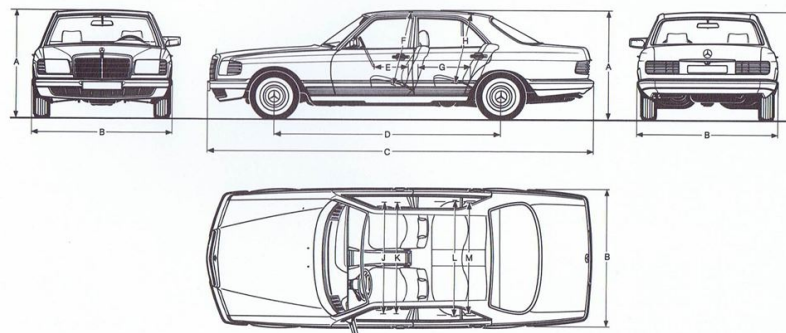
The data included in this brochure are to be regarded as approximate.

The illustrations include optional extras which do not form part of the standard equipment.

Mercedes-Benz 500 SE/SEL. Technical data

Number of cylinders	8
Bore/stroke	96.5/85 mm
Total displacement	4973 cm ³
Engine output DIN ¹⁾	177 kW at 4750/min 240 DIN/hp at 4750 rpm
Max. torque DIN ¹⁾	404 Nm at 3200/min 41 mkg at 3200 rpm
Compression ratio	8.8:1
Engine oil capacity	
max./min.	7.5/5.5 litres
Capacity of cooling system	13 litres
Generator	14V/70A
Battery	12 V/66 Ah
Max. speed	approx. 225 km/h
Tyres	205/70 VR14
Fuel ²⁾	premium (DIN 51600)
Fuel consumption DIN 70030 ²⁾	
City driving cycle	21.8 litres/100 km
at 90 km/h	11.3 litres/100 km
at 120 km/h	13.5 litres/100 km
Tank capacity	approx. 90 litres
incl. reserve	approx. 12.5 litres

	500 SE	500 SEL
A Overall height at kerb weight	1436 mm	1440 mm
B Overall width	1820 mm	1820 mm
C Overall length	5000 mm	5140 mm
D Wheelbase	2930 mm	3070 mm
E Steering wheel – driver's seat backrest ³⁾	477 mm	477 mm
F Seat height, front ⁴⁾	979 mm	981 mm
G Driver's backrest – rear seat backrest ³⁾	704 mm	841 mm
H Seat height, rear ⁴⁾	943 mm	944 mm
J Width at hip level, front	1432 mm	1420 mm
K Width at shoulder level, front	1428 mm	1428 mm
L Width at hip level, rear	1468 mm	1462 mm
M Width at shoulder level, rear	1416 mm	1416 mm
Track width, front	1545 mm	1545 mm
Track width, rear	1517 mm	1517 mm
Turning circle diameter	appr. 11.80 m	appr. 12.26 m
Boot space	appr. 505 litres	appr. 505 litres
Kerb weight ⁵⁾	1620 kg	1655 kg
Perm. gross weight	2140 kg	2175 kg
Trailer load: Legislation varies in different countries. Local dealers will be pleased to give you full information.		



¹⁾ The output given in DIN (kW or hp) is effectively available at the clutch for driving the vehicle, any other power consumption has already been deducted.

²⁾ Fuel consumption acc. to DIN 70 030, part 1, July 1978 edition. The fuel consumption figures stated have been determined by using a

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of vehicles. The fuel consumption figures obtained in normal operation will differ from those determined by this standardized procedure, depending on the driving style, road and traffic conditions, environmental factors, and the condition of the vehicle.

³⁾ Measurements vary according to seat position.
⁴⁾ Without sliding roof.
⁵⁾ The figure for kerb weight applies to standard specification cars. Extra equipment can increase the weight.
The information given in this brochure should be regarded as approximate.





Mercedes-Benz

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