

The new generation SL

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The descriptions and information in this press kit apply to the international Mercedes-Benz model range and may vary from country to country.

The new generation SL: Sportier than ever

Stuttgart – Mercedes-Benz will continue its long tradition of producing legendary sports cars when it launches the new-generation SL-Class in spring 2008. The world's most successful premium roadster in its class features a new design with the emphasis firmly on sportiness and effortless superiority. These traits are also reflected in the handling qualities of the two-seater model, which now delivers even more athletic performance thanks to the new direct-steer system as well as offering enhanced comfort and safety. The SL 350 is powered by a newly developed, highly responsive sports engine boasting an impressive output of 232 kW/316 hp yet returns a fuel consumption figure that is 0.4 litres per 100 kilometres lower than its predecessor (NEDC). The SL range will now feature two six-cylinder models in the shape of the SL 350 and the new SL 280 (170 kW/ 231 hp) as well as the familiar SL 500 with a V8 engine and the top-of-the-range SL 600 with a V12 powerplant. The Mercedes sports car extends its lead in the safety stakes courtesy of bi-xenon headlamps and the optional Intelligent Light System whose lighting functions are designed specifically for typical driving situations. Further new features on board include AIRSCARF neck-level heating. This system - invented by Mercedes-Benz and available as an optional extra - enhances comfort when driving with the roof down, extending the roadster season until well into the winter months. SL passengers are kept informed and entertained by the standard-fit COMAND multimedia system, which has also been fully revamped with a host of additional functions.

The new generation SL caps a glorious history of Mercedes sports cars, which began in 1954 with the introduction of the legendary 300 SL "Gullwing", followed in 1957 by the launch of the first SL Roadster. To date, the Stuttgart manufacturer has produced a total of over 630,000 SL sports cars.

Like its predecessors, the new-generation SL also merits its "incomparable" tag. No other sports car in this market segment offers such a perfect balance of sportiness, safety and comfort. These three qualities are the cornerstones of highly eventful, active motoring that provides a profound sense of well-being - for hallmark Mercedes refinement at the highest, sportiest level.

Design: new design idiom with unmistakable sporty overtones

When it came to developing a concept and design for the new generation SL, the Mercedes-Benz engineers set out to accentuate the roadster's sporty attributes even more strongly than before. This aspiration is reflected in the new **front-end design** featuring as its centrepiece a wide and therefore very dominant radiator grille whose **V-shape** symbolises sporty virtues such as forwards thrust and performance potential.

A horizontal louvre makes the **radiator grille** appear wider and, in doing so, emphasises the powerful aspect of the SL's front end, making it seem surprisingly new, yet so very familiar. By using expressive stylistics in this way, the Mercedes designers are able to forge a link with the SL's history and create a front-end design that is reminiscent of the earlier SL Roadster models, which also expressed their effortless superiority through wide, very distinctive radiator grilles. Hence the front-end design of the new-generation SL shows Mercedes-Benz taking the styling of the legendary sports car to the next level.

The designers also pay tribute to the forefather of the SL model series: the two **powerdomes** on the bonnet and the gill-style **air outlets** in the front wings are unmistakable hallmarks of the 300 SL from 1954 and have been given a contemporary interpretation for the new Mercedes sports car.

These classic design features drawn from five decades of roadster tradition are in tasteful harmony with new elements of the contemporary Mercedes design idiom, including the distinctive V-shaped front section and, above all, the headlamps, which are drawn deeply into the flanks, thus further emphasising the impression of breadth at the front end. As well as giving the SL a highly contemporary look,

this striking headlamp design also sees the roadster continuing its traditional role as a trendsetter. Just like its predecessors, the new-generation SL features a front-end design that will serve as a template for future Mercedes passenger cars.

At the rear, too, the new-generation SL demonstrates its sporty nature even more clearly than before. This is achieved primarily by the new **diffuser-look** bumper which adds a motorsport touch. In conjunction with the equally new trapezoidal exhaust tailpipes this design element emphasises the width of the body, further symbolising the power just waiting to be unleashed by the roadster.

Direct-steer system: consummate sporty driving pleasure

The SL name is synonymous with driving pleasure as well as design. This Mercedes sports car has always offered a scintillating driving experience that does not deal in compromises - neither in terms of handling dynamics nor by any means when it comes to comfort or safety. It was under this premise that the Mercedes engineers modified and perfected the SL technology, one example being the new, optionally available direct-steer system, which is as simple as it is ingenious and provides a whole new driving experience when cornering.

This new development is based on the familiar standard-fit **speed-sensitive power steering system** - the benefit of which is noticeable especially when driving slowly, manoeuvring or parking thanks to the lower steering forces required. New features include a variable rack ratio, which adjusts in line with the steering angle, increasing sharply as soon as this reaches five degrees. All of which means that, compared to a steering system with a constant ratio, the driver does not have to move the steering wheel as much when cornering. The car's response is therefore noticeably more direct, allowing the driver to steer more spontaneously or, in other words, more sportily.

When driving slowly or parking, the new technology combines with the speed-sensitive power steering to provide even more **comfort** than before because the large ratio further reduces the steering effort required.

In addition, the SL still offers some of the very finest **chassis technology** available in the shape of four-link front suspension and multi-link independent rear suspension. Meanwhile the **Active Body Control (ABC)** system, specified as standard for the SL 500 and the SL 600, is a unique masterpiece. It compensates body pitch, roll and yaw and adapts the suspension settings automatically to suit the current driving situation. This makes for excellent agility on the one hand and optimum driving stability on the other, without compromising the car's superb levels of comfort. Mercedes-Benz has further fine-tuned the ABC shock-absorber settings for the new-generation SL in order to bring a whole new quality to this unique blend of sportiness, comfort and safety.

Size 255/45 R 17 **wide-base tyres** and 17-inch **light-alloy wheels** are fitted as standard on the new SL 280 and SL 350 models, whereas the V8-powered SL 500 Roadster runs on 18-inch wheels shod with 255/40 R 18 tyres. And the exclusive character of the twelve-cylinder SL 600 model is accentuated by 18-inch ten-twin-spoke light-alloy wheels with 255/40 R 18 tyres at the front and 285/35 R 18 tyres at the rear.

Engines: new, extremely sporty six-cylinder powerplant

Mercedes-Benz is extending the SL-Class line-up by introducing an attractive entry-level model in the shape of the **SL 280** developing 170 kW/231 hp. The six-cylinder powerplant delivers its peak torque of 300 Nm from 2500 rpm and accelerates the roadster from 0 to 100 km/h in 7.8 seconds, whilst NEDC fuel consumption is just 9.4 litres per 100 kilometres.

For the **SL 350**, the Mercedes engineers have developed a V6 powerplant that brings the sporty qualities of new-generation SL right to the fore. The term "sports engine" could not be more apt: through a process of meticulous engineering, the Stuttgart specialists have further enlivened the temperament of the six-cylinder unit, enhancing its dynamic response dramatically. The engine responds instantaneously to movements of the accelerator pedal and can rev up to 7200 rpm in order to make full use of its power reserves in certain driving situations. Compared to the previous 3.5-litre engine, the output has been boosted

by 16 percent to 232 kW/316 hp (at 6500 rpm), while the peak torque has been increased by 10 Nm and now stands at 360 Nm. This powerpack accelerates the new SL 350 from 0 to 100 km/h in a mere 6.2 seconds, making it 0.4 seconds faster than the outgoing SL 350.

In this case, however, the extra power does not come at the expense of **fuel economy**: with NEDC consumption of 9.9 litres per 100 kilometres, the new SL 350 undercuts the previous model with its 200 kW/272 hp by 0.4 litres per 100 kilometres.

The decidedly sporty character of the V6 power unit is also clearly audible. Its powerfully sonorous vocals are the result of meticulous work carried out by sound designers. So these specialists also contribute to the sporty driving pleasure. In this respect, the standard-fit **seven-speed automatic transmission** also has an important role to play: on the one hand by allowing fast multiple downshifts when accelerating, on the other hand by providing a new **double-declutching function** that is activated during manual downshifts. As well as producing a sporty sound, this function also enhances comfort and safety as the double-declutching equalises the rotational speeds of the crankshaft and transmission. This set-up gives the driver the advantage of even more harmonious gear changes. Plus there is a noticeable reduction in load-change reactions.

The flagship engines in the SL line-up remain the eight-cylinder unit in the **SL 500** developing 285 kW/388 hp and the V12 powerplant in the **SL 600**, which develops 380 kW/517 hp thanks to its twin turbochargers. The Mercedes engineers also worked meticulously on these models to further reduce **fuel consumption** by up to 0.4 litres per 100 kilometres.

Safety: lights for every driving situation, whatever the weather

For five decades, Mercedes sports cars have been setting the pace when it comes to innovative developments in active and passive safety for open-top cars: in the 1960s the SL was the first sports car to feature a safety body based on Béla Barényi's principle, while in the 1970s the SL pointed the way ahead with its three-point inertia-reel seat belts fitted as standard. These developments were followed by ABS and the airbag in the 1980s, while the automatic roll-over bar and the robust integral seats celebrated their world premieres in the R 129 in the late 1990s. The comprehensive range of safety equipment available for the Mercedes sports car was rounded off in 2001 following the introduction of innovations such as adaptive front airbags and head/thorax sidebags.

The new-generation SL continues this tradition, the main focus of the engineers' efforts this time being to improve driving safety at night and in fog. Hence the sports car is equipped as standard with powerful **bi-xenon headlamps**, which are considerably more powerful and more energy-efficient than comparable LED headlamps. In addition, the optionally available **Intelligent Light System** provides five different lighting functions designed specifically for typical driving situations and weather conditions: country mode, motorway mode, enhanced fog lamps, cornering light function and active light function. The variable-control bi-xenon headlamps activate the various lighting functions automatically.

Motorway mode is activated in two stages when the speed exceeds 90 km/h, increasing the driver's range of vision by up to 60 percent.

When the **active light function** is activated, the headlamps pivot to the side in line with the steering angle when the driver enters a bend, increasing the range of visibility by around 25 metres on a long bend compared with the conventional dipped beam. The **cornering light function** is activated automatically at speeds below 70 km/h when the driver steers and/or indicates. This means that, as well as enhancing safety when turning at junctions or on slip roads, this lighting function is also active when cornering at low speed and improves illumination of the areas at the side of the carriageway. The **enhanced fog lamps** ensure better illumination of the verges, making it easier for drivers to get their bearings. The

intelligent headlamp technology installed in the SL can therefore make an important contribution to road safety.

Interior: sporty ambience and hallmark Mercedes comfort

A look inside the new-generation SL shows what Mercedes designers mean when they talk about the "balance of sportiness and comfort". The integral seats, the new-look **three-spoke leather steering wheel** and the completely restyled **instrument cluster** immediately make it clear that this is a thoroughbred sports car. Everything fits perfectly, all the controls are easy to see and within just as easy reach. The speedometer and rev counter sport a classic chronometer design with new-look dials that promise unerring precision.

As soon as the ignition is switched on, the cockpit instruments grab the driver's attention: the red speedometer and rev counter needles are aroused from their "six o'clock position", rotate once around the dials to their maximum values and then revert to their zero positions. The message these needle movements convey to the driver is unmistakable: "start your engine".

A wide range of **colours** and **materials** allows Mercedes customers to design and appoint the interior of the new-generation SL to their individual tastes. There are two types of leather to choose from, as well as five different aluminium or fine-wood trims and five colour combinations. The interior looks especially luxurious and refined when specified with the new natural beige/black colour scheme and the new wood trim elements in pale burr walnut with a high-sheen finish.

The **SL 600** underlines its top billing in the SL line-up even more clearly than before. Inside the passengers are cosseted by extremely soft Exclusive nappa leather and trim elements in elegant poplar wood. V12 emblems on the seat backrests, on the centre steering wheel spoke and on the door sills, as well as the uniquely designed interior door panels round off the refined twelve-cylinder ambience perfectly. On the outside, the flagship SL model is distinguishable by its exclusive 18-inch ten-twin-spoke light-alloy wheels and discreet yet highly effective detailing such as the matt-silver-painted louvres of the side air outlets

and the centre divider in the trapezoidal exhaust tailpipe trims. Mercedes-Benz has upgraded the already extensive standard-equipment package by adding the KEYLESS-GO system, Exclusive nappa leather upholstery, climatized seats and a remote-locking boot lid.

AIRSCARF: Mercedes invention extends the open-air season

The long list of systems that help to provide an outstanding level of comfort in the roadster includes a further innovation in the new-generation SL. AIRSCARF - the neck-level heating system developed and patented by Mercedes engineers - is so called because it distributes air at just the right temperature through the head restraints, forming a warm, invisible "scarf" around the driver and front passenger.

This Mercedes-Benz invention allows Mercedes customers to enjoy open-air driving pleasure for longer and even more often than before. The roadster season lasts until well into the winter months as AIRSCARF provides the SL occupants with all the warmth they need.

The optionally available heating system, which celebrated its world premiere in the SLK Roadster in 2004, has been redeveloped by the Mercedes engineers for the SL. Now the blower and heating are incorporated in the head restraints of the integral seats: two small ventilators draw in air behind the head restraints and channel it through the electric heating element to ensure rapid heating. The temperature-controlled air then flows out of special openings on the front of the head restraints and warms the occupants' head and neck areas. Both driver and passenger can select the heating temperature using a three-position switch in the door lining; the system then controls the desired temperature automatically depending on the road speed with the roof down.

Infotainment: latest multimedia technology in the centre console

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The new-generation SL is also ready for the future when it comes to information, entertainment and communications: Mercedes-Benz has further modified the standard-fit **COMAND system**, equipping it with additional functions. The result is infotainment par excellence: the multimedia unit combines a car radio including a triple tuner with telephone controls, a CD/DVD changer and a slot for SD memory cards. Further new additions include a Bluetooth interface, which connects a mobile phone to the standard-fit hands-free system wirelessly, and a large colour display (6.5 inch) that enhances user-friendliness and serves as a high-resolution screen for playing DVD films - although not whilst the car is being driven, for obvious safety reasons.

An even wider range of high-tech electronics is available ex factory: Mercedes customers can now order the optional **COMAND APS** system. Its additional features include a Europe-wide navigation system whose data are stored on a hard disc and therefore allow extremely fast route calculations. For playing music, there is an integrated six-disc CD/DVD changer and Music Register for around 1000 MP3 or WMA tracks. A stored database ("Gracenote") enables automatic recognition of the music tracks and their artists. This information is then posted on the colour display.

The standard COMAND APS package also includes the latest-generation **LINGUATRONIC voice-operated control system**, which controls the navigation, telephone and audio systems based on its whole-word recognition capability. This system is of great benefit as drivers no longer need to spell out their commands. Instead, they simply say what they want, whether it be a destination for the navigation system, a radio station or a name in the stored phone book.

For the first time, it is also possible to connect an iPod, USB stick or other external audio devices to the COMAND system thanks to the newly developed, universal **Media Interface** (optional) in the centre console. This interface is more than just an electronic "socket"; the Media Interface also includes an ECU that links the external music storage media to the SL's on-board electronics and

control system. In this way, the iPod music tracks can also be indicated on the instrument cluster and on the COMAND display in the centre console. Plus they can be called up easily using the buttons on the multifunction steering wheel. The audio device's battery is charged as long as the portable music storage media is connected to the car via the Media Interface.

For a complete in-car music experience, Mercedes-Benz can equip the new-generation SL with the Harman Kardon "Logic7" **surround sound system** (optional), which is also used in the S-Class and whose performance has been confirmed in numerous tests. The sound system has an output of 510 watts and converts the SL interior into a mobile concert hall - whether the vario-roof is up or down - courtesy of ten high-performance loudspeakers and state-of-the-art surround technology.

The new generation SL will make its public debut in March at the International Motor Show in Geneva. It will then appear at Mercedes-Benz outlets and dealerships in Europe from April 5, 2008.

SL-Class: New design and technology

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Safety

- Bi-xenon headlamps with cornering light function
- Intelligent Light System with five lighting functions, including cornering light function

Comfort

- AIRSCARF neck-level heating

Engines and transmission

- New SL 280 with V6 engine developing 170 kW/231 hp
- New high-revving sports engine (232 kW/316 hp) for the SL 350
- Fuel consumption reduced by up to 0.4 litres per 100 kilometres
- Seven-speed automatic transmission in the SL 350, including double-declutching function

Chassis and suspension

- Direct-steer system with sporty, dynamic rack ratio
- Active Body Control with further enhanced tuning
- 18-inch light-alloy wheels as standard for the SL 500

Infotainment

- COMAND system with large colour display and new additional functions
- COMAND APS including hard-disc navigation, Music Register and voice-operated control
- Media Interface for connecting an iPod and other audio devices
- LINGUATRONIC voice-operated control system with whole-word recognition capability
- Surround sound system with ten loudspeakers and an output of 510 watts

Interior design

- New-look instrument cluster
- New three-spoke leather sports steering wheel
- New interior colour - natural beige - and new trim elements in pale burr walnut with a high-sheen finish
- Seat covers with new fluting
- SL 600 including exclusive fine-wood trim elements in pale poplar grain, specially designed interior door panels and V12 emblems on seats, steering wheel and door sills as well as even wider range of V12 standard equipment

Exterior design

- All-new front-end design with distinctive V-shape and wider radiator grille
- Bonnet with powerdomes
- New-look front wings with gill-style air outlets
- New, larger exterior mirrors featuring arrow-type indicator repeaters
- New, diffuser-style rear bumper

- Trapezoidal exhaust tailpipe trims
- Sports package with black-coloured headlamp inner frame
- SL 600 with V12 emblems on the front wings, special exhaust tailpipe trims and 18-inch ten-twin-spoke light-alloy wheels

AMG dream machine with a revolutionary transmission and a 386 kW/525 hp V8 engine

Palm Springs/Affalterbach – Emotional performance courtesy of cutting-edge engineering: the new Mercedes-Benz SL 63 AMG in a nutshell. The roadster is powered by an AMG 6.3-litre V8 engine developing 386 kW/ 525 hp and 630 Newton metres – which makes it today’s most powerful model with a V8 naturally aspirated engine in its class.

The SL 63 AMG comes exclusively with the all-new, innovative AMG SPEEDSHIFT MCT 7-speed sports transmission. The newly developed power transfer concept features a compact, wet start-up clutch that replaces the conventional torque converter. The resulting direct connection to the powertrain, together with the double-declutching and Race Start functions, guarantees an extremely emotional, supremely dynamic driving experience. The SL 63 AMG sets new standards in the open-top sports car segment thanks to this outstanding drive combination and the retuned, even more agile AMG sports suspension based on Active Body Control.

The AMG SPEEDSHIFT MCT 7-speed sports transmission is an all-new, unique concept, available exclusively in the new Mercedes-Benz SL 63 AMG. It combines the best of two worlds: the sporty, direct and agile feedback of a manual transmission and the maximum convenience of an automatic transmission. Fitted with seven speeds, four drive modes, a double-declutching and Race Start function, the AMG SPEEDSHIFT MCT 7-speed sports transmission offers unprecedented versatility. MCT stands for Multi-Clutch Technology and only employs clutch elements to perform gearshifts.

No interruption in torque and four drive modes

At the heart of the new AMG SPEEDSHIFT MCT 7-speed sports transmission lies the wet start-up clutch, which runs in an oil bath and replaces the previous torque converter. Thanks to its low rotational inertia, the transmission responds instantaneously and dynamically with no slip. Accelerator pedal movements trigger an instant traction response. Fitted with four drive modes, the transmission provides gearshifting with no loss of tractive force and supports customised control strategies for maximum driving pleasure. In “C” mode the gearshifts are comfortable, coupled with a “soft” accelerator response set-up for outstandingly smooth power transfer. In “S” mode the engine and transmission interact with more "bite": the engine speed is allowed to reach a higher level in each gear; the downshifts also feel more spontaneous. The gearshifts are around 20 percent faster than in “C” mode. Switching to “S+” mode cuts another 20 percent off shift times, while “M” is the sportiest mode: here the AMG 6.3-litre V8 engine has even more bite, added to which the transmission shifts gear another 10 percent faster – a reduction of 50 percent compared with “C” mode. In “M” mode the gearshifts take just 100 milliseconds.

Ultra-fast, spontaneous multiple downshifts are another forte of the new MCT sports transmission. For instance, kickdown lets you move straight from seventh down to fourth gear or from fifth to second. In the “S” (Sport), “S+” (Sport plus) and “M” (Manual) modes the automatic double-declutching function is active. And this not only adds to the driver's emotional experience: the virtually load-free downshift minimises load-change reactions, which pays dividends particularly when braking into a bend on the racetrack.

New AMG DRIVE UNIT with innovative Race Start function

The new AMG DRIVE UNIT is the central control unit for the AMG SPEEDSHIFT MCT 7-speed sports transmission and all driving dynamics functions. On the left next to the selector lever is the electronic rotary switch to select the four drive modes including activation of the new Race Start function. Underneath are three buttons for additional functions: the first controls the ESP[®] function, the second

the ABC suspension system. The third adorned with AMG lettering is used to store the selected transmission drive mode and the suspension set-up. Briefly pressing the AMG button brings up the configuration options, while holding down the button allows you to program the required set-ups.

The Race Start function takes driving dynamics to an entirely new level: it enables the SL 63 AMG driver to call on maximum acceleration, while ensuring optimum traction of the driven wheels. The optimum start-up engine speed is set fully automatically and the SL 63 AMG accelerates away in an instant - even up to maximum speed if required. The driver does not need to shift gear manually; the AMG transmission changes gear with lightning-fast shift times.

AMG 6.3-litre V8 naturally aspirated engine with 386 kW/525 hp

The AMG 6.3-litre V8 engine teams up with the AMG SPEEDSHIFT MCT 7-speed sports transmission to form a perfect partnership for dynamic driving pleasure and outstanding performance. The SL 63 AMG accelerates from 0 to 100 km/h in 4.6 seconds before quickly going on to a top speed of 250 km/h (electronically limited). The high-revving, naturally aspirated engine generates 386 kW/525 hp at 6800 rpm from a displacement of 6208 cubic centimetres, delivering maximum torque of 630 Newton metres at 5200 rpm. The unique combination of high-revving concept and large displacement achieves the best of both worlds: high pulling power at low engine speeds coupled with exhilarating high-revving flexibility - right up to 7200 rpm.

The AMG V8 is packed with a wealth of fascinating racetrack technology, including the lightweight, extra-rigid closed-deck crankcase and cylinder walls with a revolutionary TWAS coating as well as the valve train designed for high engine speeds with bucket tappets in the cylinder heads. The vertical arrangement of the intake and exhaust ports together with the variable intake manifold featuring two integral throttle flaps results in superlative cylinder charging and high power output.

The sophisticated electronically controlled fuel supply provides a consummately spontaneous response to accelerator movements in all driving situations; the AMG

sports exhaust with two oval, chromed twin tailpipes guarantees the characteristic AMG V8 vocals. The tri-metallic coating used in the catalytic converters results in a faster response from a cold start, more efficient emission control as well as superior long-term durability. The SL 63 AMG fulfils all standard exhaust emissions limits such as EU 4 and the specific requirements of the U.S. market (LEV-II, On-Board Diagnosis II and oxygen sensor diagnosis).

AMG sports suspension based on Active Body Control and 3-stage ESP®

The dynamic drive unit finds its perfect match in the SL 63 AMG suspension. The AMG sports suspension based on Active Body Control has been further enhanced and not only comes with new spring and damper tuning but also completely modified elastokinematics. The front axle bearings, the spring links and the torque strut along with individual strut bearings at the rear have been retuned to deliver greater agility and shorter stopping distances. In partnership with the optimised speed-sensitive power steering the SL 63 AMG now feels even more direct and livelier. The AMG sports suspension based on Active Body Control also enables the suspension set-up to be customised. At the push of a button, the driver can select a sporty, firm response with reduced roll angles, or go for a comfort-focussed setting for excellent comfort on long journeys.

Also new is the 3-stage ESP® with sports function. This system provides three different settings and is the logical development of the AMG ESP® philosophy. The driver can choose between the settings “ESP ON”, “ESP SPORT” and “ESP OFF” by pressing the ESP® button in the AMG DRIVE UNIT – the activated setting is shown in the central display in the AMG instrument cluster.

AMG high-performance braking system and 19-inch AMG light-alloy wheels

The AMG high-performance braking system rises to the exacting requirements associated with consummate driving dynamics. The front wheels are equipped with internally ventilated, perforated 360 x 36-millimetre composite disc brakes with six-piston aluminium fixed callipers, while deceleration at the rear comes courtesy of internally ventilated, perforated 330 x 26-millimetre brake discs with four-piston

fixed callipers. The result is the very short stopping distances, outstanding sensitivity and remarkable resistance to fading.

The 19-inch AMG light-alloy wheels with their alluring triple-spoke styling and titanium grey finish plus high-sheen star on the centre of the wheel are also new. 255/35 R 19 (front) and 285/30 R 19 (rear) tyres are fitted to the 8.5 and 9.5-inch-wide wheels. The 19-inch AMG light-alloy wheels with their striking design blend in harmoniously with the new AMG bodystyling.

New AMG bodystyling ensures clear differentiation

The appearance of the SL 63 AMG now gives away its exceptional status more than ever before. The new-look front apron with a more pronounced arrow shape, black-painted radiator grille, larger cooling air intakes and lower transverse fin painted in black harmonises perfectly with the redesigned front end of the SL-Class, giving it a decidedly masculine aura. The distinctive AMG bonnet more than hints at the unique power unit underneath. Bi-xenon headlamps with their dark surrounds, and large round fog lamps set well to the side in chrome surrounds also emphasise the vehicle's width. The hot air from the additional engine oil cooler in the front wheel arch escapes through side air outlets in the front apron. New exterior mirrors featuring LED indicators with a pronounced arrow shape catch the eye, as do the matt-silver-painted AMG trim panels on the front wings with "6.3 AMG" lettering.

The AMG bodystyling also includes the AMG side skirts and the powerful AMG rear apron with its large black diffuser insert. A visual and acoustic feast comes in the guise of the AMG sports exhaust with two chromed twin tailpipes. The AMG spoiler lip on the boot lid reduces lift especially at high speeds.

Interior featuring new AMG sports steering wheel with three-spoke design

The interior of the new SL 63 AMG offers an alluring combination of exclusive equipment details and a dynamic, practical look. The eye is drawn to the new AMG ergonomic sports steering wheel with its three-spoke design and aluminium

AMG shift paddles. The grip area is specially shaped and covered in perforated leather, while the vertical spoke is embellished by a silver-coloured insert. Behind sits the new AMG instrument cluster with “6.3 V8” lettering on the rev counter and the new-look instrument cluster trimmed in nappa leather with double topstitching above the round gauges. As soon as the ignition is switched on, the speedometer and rev counter needles rotate in unison around the dials to their maximum values and then instantly revert to their original positions.

The AMG main menu integrated in the AMG instrument cluster displays the currently engaged gear including recommended upshifts, the “RACETIMER” with lap times, information on the engine oil temperature and battery voltage, along with the activated transmission drive mode including Race Start and the selected ESP[®] mode. New, exclusive equipment for the SL 63 AMG with AMG SPEEDSHIFT MCT 7-speed sports transmission includes the AMG selector lever in a leather/carbon-fibre finish and the stylishly integrated AMG DRIVE UNIT with rotary switch for the four drive modes and buttons for ESP[®], suspension set-up and the AMG mode.

Standard-fit AMG sports seats with optional AIRSCARF

The standard specification also includes fine nappa leather upholstery, genuine carbon-fibre trim and the multi-way electrically adjustable AMG sports seats with multicontour and memory functions, seat heating, AMG-specific perforation pattern and seat design, and AMG badge. The optional AIRSCARF neck-level heating system is a new addition. At the push of a button, it blows warm air through the head restraints – providing open-air motoring pleasure even if there is a chill in the air.

The new SL-Class also features the new-generation telematics. The sophisticated unit combines ease of use, logical menu structure and consummate entertainment. Features include speed-sensitive volume control, a keypad for entering telephone numbers and radio frequencies, an MP3-compatible CD or DVD player as well as a Bluetooth interface that wirelessly links a mobile phone to the hands-free system. The COMAND APS features a high-resolution 6.5-inch colour display,

LINGUATRONIC voice-operated control system for audio, navigation and telephony, a music library function to store audio files and an SD memory card slot.

Optional extras from the AMG *PERFORMANCE STUDIO*

The SL 63 AMG can be further enhanced with exclusive optional extras from the AMG *PERFORMANCE STUDIO*. These include:

- AMG exterior carbon-fibre package with side air outlets in front apron, exterior mirror housing, spoiler lip and genuine carbon-fibre diffuser insert in rear apron
- AMG performance steering wheel with flattened underside and smaller diameter
- AMG door sill panels, illuminated in white light
- 19-inch AMG twin-spoke forged light-alloy wheels with mixed-size tyres, 255/35 R 19 and 285/30 R 19

A Performance Package developed in the AMG *PERFORMANCE STUDIO* is also available for the SL 63 AMG; it includes even more powerful components and is ideally suited for drivers with sporty inclinations:

- Internally ventilated composite brake discs, size 390 x 36 mm, on the front axle
- Multiple-disc limited-slip rear differential with a locking factor of 40 percent for enhanced traction
- 19-inch AMG twin-spoke forged light-alloy wheels with mixed-size tyres, 255/35 R 19 and 285/30 R 19
- AMG performance suspension based on Active Body Control
- AMG performance steering wheel with smaller diameter, flattened underside, silver-coloured aluminium shift paddles

Interested customers can now order the SL 63 AMG and SL 65 AMG; the new AMG Roadsters will be launched in April 2008. Sales prices are:

- SL 63 AMG: €145,239.50 (incl. 19% VAT)
- SL 65 AMG: €221,518.50 (incl. 19% VAT)
- Performance Package SL 63 AMG: €11,305 (incl. 19% VAT)

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Further information from Mercedes-Benz is available on the internet at www.media.daimler.com

Sporty refinement

- **New SL generation with the emphasis firmly on sporty attributes**
- **Even more exclusive technology for comfort, safety and driving pleasure**
- **Standard specification more extensive and attractive than ever**
- **Successful model history with over 630,000 SL sports cars since 1954**

"Sporty" and "Lightweight" were the hallmarks of the car unveiled more than 50 years ago that became a legend: the Mercedes-Benz 300 SL. In 1954, it entered series production as the "Gullwing", followed in 1957 by the launch of the first SL Roadster.

Since then the SL name has captured the hearts of sports car fans around the world – two letters that became synonymous with a legend on wheels, a legend set to continue well into the future.

Mercedes-Benz has developed, upgraded and improved the SL-Class down to the smallest detail – far beyond any normal facelift. This new generation builds on the glorious SL heritage in all departments: the design once again merits its "upscale" tag; the technology bar has been raised even further and the equipment and appointments are more discerning than ever.

The result was a car that offers an incomparable synthesis of sportiness, safety and comfort in this vehicle class: Mercedes refinement on a sporty level. In other words, the new-generation SL is the most refined way of experiencing an open-top sports car.

State-of-the-art technology creates the conditions for this perfect interplay. The SL-Class has always delivered the sort of innovation no other sports car could match anywhere in the world – from the active suspension system, through the sensor-controlled pop-up roll-over bar to the seven-speed automatic transmission. The new-generation SL is poised to consolidate its leading position by offering

other highlights exclusively available from Mercedes-Benz in the shape of the AIRSCARF neck-level heating, the Intelligent Light System, the all-new COMAND system and the direct-steer system.

Six-cylinder models: high-tech through and through, from bi-xenon up to seven-speed automatic transmission as standard

The SL engines live up to the Mercedes aspiration of "Fascination and Responsibility", adding two new V6 units to the line-up that demonstrate convincingly that exemplary performance and low fuel consumption need not necessarily be irreconcilable: the SL 280 develops 170 kW/231 hp and consumes just 9.4 litres of premium petrol per 100 kilometres (NEDC). The sporty characteristics of the SL come right to the fore courtesy of the 232 kW/316 hp six-cylinder engine. The high-revving sports engine develops 16 percent more output than before, while NEDC combined consumption has been reduced by 0.4 to 9.9 litres per 100 kilometres.

Sporty drivers will not only be suitably impressed by the high torque and performance characteristics of the SL-Class six-cylinder models but will find the standard equipment package meets even the most discerning requirements. An overview*:

- Stowage compartment in front of/behind seats
- Adaptive brake lights
- Driver and front passenger airbags
- Ambient lighting
- Larger exterior mirrors (heated) with arrow-type LED indicator repeaters
- Outside temperature display
- Leather-trimmed automatic transmission selector lever
- AUX-IN connection in glove compartment
- Bi-xenon headlamps with headlamp cleaning system
- Brake Assist
- LED brake light
- COMAND with colour display, Bluetooth interface and CD/DVD changer
- Cup holder
- Anti-theft alarm system with tow-away protection
- ESP®
- Headlamp Assist
- Luggage box in the boot

- Removable luggage cover
- Seat belts with automatic comfort-fit
- Belt tensioners and belt force limiters
- Ventilated glove compartment
- Head/thorax sidebags
- Remote boot-lid release system
- Integral seats, electrically adjustable (SL 350 and higher incl. memory function)
- Child seat detection in the front passenger seat
- Automatic climate control with combined filter and residual heat mode
- Leather steering wheel with three spokes
- 17-inch light-alloy wheels
- Electrically adjustable steering column (SL 350 and higher incl. memory function)
- Speed-sensitive power steering
- Upholstery in leather/fabric combination
- Rain sensor
- Trip computer
- 7G-TRONIC seven-speed automatic transmission
- Cruise control
- Roll-over bar with crash sensor
- Vario-roof with remote control
- Immobiliser
- Draught stop (SL 350 or higher)
- Central locking incl. glove compartment, centre console and rear stowage compartments
- Aluminium trim elements

Eight-cylinder engine: pole position courtesy of Active Body Control

The powerful eight-cylinder engine with 285 kW/388 hp, available for the SL 500 since 2006, remains unchanged in the Mercedes sports car line-up. Its petrol consumption (NEDC) has been reduced by 0.3 litres. Mercedes-Benz has upgraded the standard specification for the new-generation SL with 18-inch light-alloy wheels. An overview* of the additional standard equipment and appointments for the SL 500:

- Active Body Control
- Automatically dimming interior and exterior mirrors
- Leather upholstery
- 18-inch light-alloy wheels
- Metallic paintwork
- Heated seats
- Burr walnut trim elements

Twelve-cylinder engine: technology and equipment of the highest order

The top-of-the-line SL model is fitted with the 380 kW/517 hp V12 biturbo engine. The Mercedes engineers have reduced fuel consumption for the 12-cylinder unit by 0.4 litres per 100 kilometres.

A raft of special styling details has given the unique position of the 12-cylinder model an even sharper edge, including silver-painted air outlets and V12 emblems on the front wings, exclusive 18-inch 10-twin-spoke light-alloy wheels, V12 emblems on the seat backrests, poplar wood trim elements or the specially designed interior door panels trimmed in leather. The convenient KEYLESS-GO access and drive authorisation system, the remote boot-lid release system and the new COMAND APS system including hard-disc navigation enhance the already high-quality specification of the SL 600. An overview* of the additional standard equipment and appointments for the SL 600:

- COMAND APS including Europe-wide hard-disc navigation system
- Remote boot-lid release system
- KEYLESS-GO
- Climatised seats and V12 emblems
- Exclusive nappa leather upholstery
- 18-inch ten-twin-spoke light-alloy wheels
- Wood/leather steering wheel
- PARKTRONIC
- LINGUATRONIC voice-operated control system
- Surround sound system
- V12 emblems on the front wings
- Poplar wood trim elements

Optional extras: spoilt for choice

Mercedes-Benz offers a host of optional extras to meet the needs of the many customers looking for even more individuality and comfort. Optional extras for the new-generation SL range from the new AIRSCARF system to the surround sound system.

An overview*:

- Active Body Control (standard on the SL 500 and SL 600)
- AIRSCARF
- COMAND APS incl. CD/DVD changer, Music Register, Europe-wide hard-disc-based navigation and voice-operated control system (standard on the SL 600)
- Direct-steer system with variable servo assistance
- DISTRONIC
- Intelligent Light System
- KEYLESS-GO (standard on the SL 600)
- Climatized seats (heated and ventilated) (standard on the SL 600)
- Media Interface in the centre console
- Panoramic glass vario-roof
- PARKTRONIC (standard on the SL 600)
- Run-flat tyres
- Tyre pressure monitoring system (standard on the SL 600)
- 7G-TRONIC Sport seven-speed automatic transmission with steering-wheel gearshift paddles
- Analogue/digital TV tuner
- Black ash trim elements
- Pale burr walnut trim elements with high-sheen finish

*Selection

Sports package: exclusivity down to the smallest detail

Mercedes-Benz continues to offer an optional sports package for the new-generation SL (SL 280 to SL 500), made up of a range of special styling and engineering details, some of which are not available separately, to add that extra touch of exclusivity to the sports car. Headlamps with black-coloured inner frames are the new hallmark of the SL models with the sports package. The package also comes with the following equipment and appointments (selection):

- Seats, steering wheel, dashboard, centre console, armrest, automatic transmission selector lever and interior door panels with fine, silver-coloured contrasting topstitching
- Steering wheel and automatic transmission selector lever trimmed in perforated leather
- Prism-pattern aluminium trim elements
- Roof lining trimmed in black fabric
- 19-inch five-twin-spoke light-alloy wheels
- Painted front brake callipers, with "Mercedes-Benz" lettering

- Perforated disc brakes all round
- Bi-xenon headlamps with black-painted inner frames
- Darkened rear light units
- Seven-speed automatic sports transmission with steering-wheel gearshift paddles

Success story: number one in the global premium sports-car market

Since the mid-1950s Mercedes-Benz has produced over 630,000 SL sports cars. The R 107 series sold 237,000 units and was produced for 18 years between 1971 and 1989: in absolute terms the best-selling model over the longest period in this Mercedes model series.

However, the actual bestseller to date has been the R 129, which proved an undoubted hit with drivers, notching up some 205,000 units in "just" twelve and a half years between 1989 and 2001. However, the current SL-Class (R 230) is even more successful. Compared with the sales of the predecessor model in the first six and a half years after the market launch, the current SL is well ahead with 140,000 units already to its name.

From the outset, the SL was a real export success story, decisively contributing to making the slogan "made in Germany" a household name around the world. Particularly in the USA the Mercedes sports car ranks among the masterpieces of German automotive engineering. Boasting a 51 percent market share, the U.S. remains the main market for the SL-Class.

Competition in the small but upscale market segment for luxury sports cars has increased substantially over the past few years. While the SL would be struggling to find a competitor 10 years ago, today an increasing number of brands are slugging it out with ever more models aimed at sports car aficionados. Despite this fiercely competitive market, the Mercedes-Benz SL is and remains the world's number one open-top premium sports car in this class – a lead Mercedes-Benz intends to build upon with the new-generation SL over the next few years.

And so the legend lives on.

Building on our heritage

- **New front-end design with sporty, muscular touches**
- **Past, present and future stylishly combined**
- **Cockpit with new-look instruments and three-spoke steering wheel**

Looking to the past points the way to the future – a paradox at the heart of the guiding principles followed by the Mercedes engineers. Building on the Stuttgart manufacturer's illustrious history, these principles spark the impetus and creativity for new, enthralling ideas. Not least because the future is built on our heritage.

This is made clear at first glance of the 2008 SL: unmistakably, the new-look front section pays tribute to the "facial traits" of the first SL models, adapting them to the contemporary Mercedes design idiom and combining traditional features with new styling elements to pave the way for future design concepts. After all, the SL has always been a one-off in the Mercedes design philosophy, positioned firmly outside the usual vehicle hierarchy, setting the style trends for other future models to follow. And it is a feat Mercedes-Benz has pulled off successfully several times throughout the history of the SL.

Past, present, future: the designers set out to come up with a harmonious, three-part composition from these elements when designing the new-generation SL. They aimed to tighten up the contours of the sports car, convey its characteristic features even more clearly – particularly its performance, its agility and its effortless superiority.

To achieve this they focused on the front section. Bumper, radiator grille, headlamps, bonnet and wings were completely redesigned. All the front-end styling touches aim to emphasise the width of the body, lending the car a more powerful stance combined with a more dominant appearance, an altogether more compelling expression of its poise and assurance.

The V-shape of the front section is a typical, well-established styling element that symbolises in particular agility, performance potential and forwards thrust. All the new Mercedes passenger cars – S-Class, CL-Class and C-Class – sport this design feature, which now also makes an unmistakable statement on the new-generation SL.

The entire front section appears to be cast from a single mould. This overall impression comes especially from the new-look bumper which now forms a unit with the radiator grille. So in effect, there is now no horizontal division between the radiator and bumper – the radiator grille is harmoniously integrated, has more room than before and therefore appears visibly higher.

Radiator grille: wide and powerful like on the first SL sports cars

As always, the radiator grille is the most important styling element in the SL front section. It is not only higher but also substantially wider than before, adding to the dominant, ultra-powerful appearance of the new-generation SL. The designers have deliberately avoided the multiple horizontal louvres found in the previous model. Instead there is now just a single louvre to emphasise the extra width of the radiator and to give the front section an even more distinctive shape.

Traditionally, the radiator grille has been a very important styling element in Mercedes passenger cars. For decades it has been among the unmistakable hallmarks of the Mercedes-Benz line-up, taking its place as one of the key elements in the brand's stylistic gene pool. The Mercedes designers always make discreet but nonetheless tangible enhancements to these kinds of identifying features; they endeavour to always reinterpret these styling elements, giving them a fresh, contemporary look, both in terms of their basic proportions and detailed execution. All of which keeps the design idiom and the brand image alive, innovative and dynamic – and at the same time unmistakable.

The so-called SL radiator was adopted directly from motor racing during the 1950s, and has been a symbol of Mercedes sports cars ever since. Each of the previous SL sports cars that Mercedes-Benz has unveiled since the legendary

"Gullwing" has shown clearly the relative emphasis placed on tradition and progress: although each model has features in common with its predecessors, it also clearly demonstrates further design development and emphatically ushers in a new design era. The same also applies to the new generation of the SL.

The Mercedes designers pay special tribute to the Mercedes 300 SL (1954/1957), 230 SL (1963) and 280 SL (1971) sports cars in particular with the current radiator styling. Here, too, a very wide radiator made up of a single louvre emphasises the roadster's poise, adding further weight to the formal statement made by the car.

Tradition: typical styling elements reinterpreted

The Mercedes principle involves combining the past, present and future. The designers also turn to other styling elements from the Mercedes sports car history to turn this principle into reality. Take just two examples:

- The **powerdomes** on the bonnet were among the hallmarks of the "Gullwing" and the 300 SL Roadster back in the 1950s. Originally they were conceived to house the in-line six-cylinder engine; the engine had to be mounted horizontally and tilted 50 degrees to the left - hence the distinctive moulded recesses in the bonnet. Since then they have been a typical feature of Mercedes sports cars, fitting in harmoniously with the contemporary front-end design of the new-generation SL.
- The side **air outlets** in the wings on the 300 SL were driven more by functional than stylistic considerations. Today they serve as design elements that provide a stylish connection with the classic SL models. The designers have stylistically evolved this detail for the new-generation SL: the trim panel has been enlarged and given an even more dynamic shape.

Present: integration of the SL in the current Mercedes styling

The new Mercedes design style is characterised by the compelling interplay of lines and surfaces. The lines are clearly drawn, adding to their very powerful

appearance. They give structure to the surfaces and provide interesting lighting effects.

The new-generation SL embraces this current design concept. A distinctive shoulder line runs from the new-look front wing, continuing right through to the rear end of the sports car and finally flowing harmoniously into the design of the rear light cluster. The sports car demonstrates down to the last detail that it is a member of the current model family – and that it continues the common Mercedes design idiom as well as embracing the glorious tradition of the SL models.

The larger, new-look exterior mirrors on the sports car literally offer the driver a better "rear view", thus enhancing safety. The additional LED indicator repeaters built into the housing with their arrow-shaped surround make for an eye-catching feature.

Future: headlamp design adds impetus to new design concepts

The design of the new-generation SL also provides an opportunity to map out new stylistic approaches and hone important styling elements of the Mercedes design in a bid to forge the link between heritage and the future. Take for example, the headlamps. The experts from Sindelfingen have fine-tuned the design, which they unveiled on the CLS-Class in 2004 and later also included on the S-Class, CL-Class and C-Class, thus providing added impetus for the design of future Mercedes models.

The new Mercedes headlamps provide the visual link, ensuring a cohesive front-end and side design and adding to the overall harmonious image. This impression is reinforced with the new-generation SL; the headlamps come well up into the bonnet and at the same time right into the flanks.

Rear: new-look bumper for extremely powerful appearance

As well as the front bumper, the designers have restyled the rear bumper on the SL, taking the opportunity to reinforce the roadster's sporty attributes here, too. This is achieved particularly through the diffuser-style structure of the lower area, which is also delineated and visually highlighted by a tautly drawn edge. The bumper comes across as wider and larger than before – testimony to the roadster's pure power. This impression is reinforced by the perfectly integrated, trapezoidal exhaust tailpipe trims, yet another addition to the new design elements on the Mercedes sports car.

Interior: cockpit modelled on earlier racing cars

A look inside the new-generation SL illustrates the interplay of classic and contemporary. The cockpit instruments with their classic, chronometer-style gauges awaken memories of the racing cars of bygone years and their exact, enhanced dials promise unerring precision.

Red needles on white dial rings – the new splash of colour on the instrument cluster whose dynamic needles are reminiscent of racing cars: the speedometer and the rev counter needles normally sit in the "six o'clock position", but instantly spring to life when the ignition is turned. They rotate once around the dials to their maximum values and then revert to their zero positions, letting the driver know the SL is ready to race.

The sporty three-spoke leather steering wheel is also new in the cockpit of the sports car. It comes with illuminated buttons for a host of functions and optional gearshift paddles to manually control the seven-speed automatic transmission. The integral seats come with a new-look surface design whose classic longitudinal contours also hark back to the SL of yesteryear. Seat comfort and lateral support continue to meet the high standards expected from Mercedes-Benz.

Five different colours are available for the SL interior. The colour natural beige has been added as a replacement for the previous cognac brown. Mercedes customers can also personalise the trim elements, with a choice of aluminium and prism-pattern aluminium (in conjunction with the sports package), as well as fine-wood finishes including burr walnut, pale burr walnut with a high-sheen finish, and black ash. Pale poplar grain trim elements are available exclusively for the SL 600, the top-of-the-line V12 model.

The Mercedes-Benz designo range offers even more individualisation options, including ten metallic paint finishes, twelve leather colours and five trim options comprising wood and stone.

"Simply unique"

- **V6 sports engine with 16 percent higher output coupled with reduced fuel consumption**
- **All-new direct-steer system for even more agile cornering**
- **Intelligent light distribution to match driving and weather conditions**
- **AIRSCARF ensures roadster driving pleasure even in winter**
- **Standard-fit COMAND system with additional functions**

For over five decades the SL models have been among the technology trendsetters in the sports-car segment. Groundbreaking inventions made it to series production for the first time in one of the Mercedes roadsters. In the 1950s, the 300 SL set the standard with direct petrol injection and all-round disc brakes, in the 1960s the 230 SL was the world's first sports car fitted with a safety body and sturdy hardtop, nicknamed the "pagoda" on account of its shape. The R 107 series offered enhanced safety in the 1970s courtesy of its advanced-design body offering 50 percent more strength, while the SL set the benchmark for other sports cars with its automatic pop-up roll-over bar, draught stop and integral seats in 1989. In its footsteps comes the current SL Roadster with new technology innovations which no other car in its class can match.

The Mercedes engineers have raised the bar even further in order to reinforce the characteristic features of the SL: safety, comfort and sportiness.

The experts in Stuttgart and Sindelfingen paid particular attention to the engines. A new six-cylinder model comes in the guise of the SL 280, which offers a compelling entry route into the world of Mercedes top-class sports cars with its 170 kW/231 hp engine. The two-seater accelerates from 0 to 100 km/h in just 7.8 seconds before going on to a top speed of 250 km/h. The V6 engine also demonstrates that effortless power delivery and good fuel economy need not be a contradiction in terms: the SL 280 consumes 9.4 litres of premium petrol per 100 kilometres (combined NEDC), meeting today's fuel economy requirements.

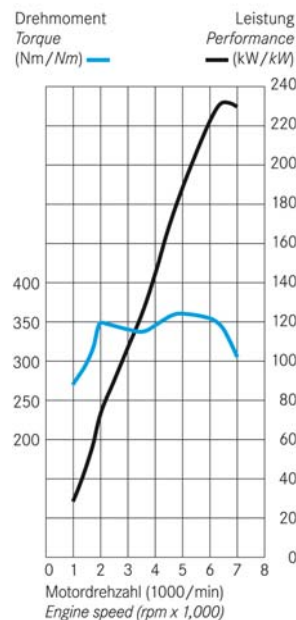
New high-revving V6 sports engine for the SL 350

The Mercedes engineers have given the SL 350 a new heart that beats very strongly: a V6 sports engine that brings the roadster's sporty characteristics to life more than ever. The extra 32 kW/44 hp, which distinguishes the new six-cylinder unit from its predecessor, is just one part of the story; another key feature of the sports engine is its responsiveness, demonstrated clearly by its high-revving flexibility.

The 3.5-litre engine effortlessly laps up engine speeds normally well out of bounds for series-production engines of this displacement class. Its rated output of 232 kW/316 hp is reached at 6500 rpm and it revs up to 7200 rpm in no time at all in order to make full use of its power reserves in certain driving situations.

The maximum torque has also been increased and is now 360 Nm at 4900 rpm: 10 Nm more than before. Even as low as 2000 rpm, the engine develops some 97 percent of its maximum torque (350 Nm), delivering high pulling power and outstanding performance. The new SL 350 accelerates from 0 to 100 km/h in 6.2 seconds, the top speed is electronically limited at 250 km/h.

With this SL model though, extra power does not come at the expense of fuel economy. On the contrary, the V6 sports engine boasts combined NEDC fuel consumption of 9.9 litres per 100 kilometres: 0.4 litres more economical than the previous V6 engine in the SL 350.



Higher compression, advanced pistons and single-stage intake manifold

A large red "V" on the engine cover is the visual hallmark of the new high-revving sports engine. Yet the decisive modifications are hidden from view; a process of meticulous engineering was required to modify the character of the six-cylinder engine and mobilise its power reserves.

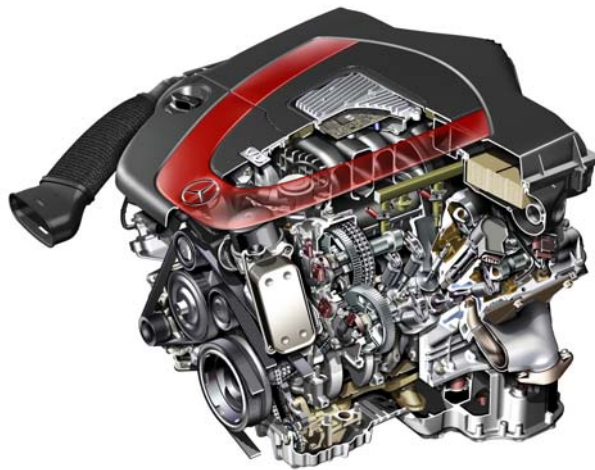
The Mercedes engineers decided to increase the power of the six-cylinder unit by increasing engine speed and going for a higher compression ratio of 11.7 : 1 (previously 10.7 : 1) to address the fundamental limitation of the naturally aspirated engine when it comes to charging. The new compression ratio, which improves fuel consumption particularly under partial load thanks to improved efficiency, has been made possible through advanced, weight-optimised pistons with a curved surface. The valve pockets needed to be milled deeper to ensure smooth valve operation. Meanwhile, reinforcements around the piston pins provide the strength to withstand the increased forces.

Since the intake manifold fitted with flaps on the previous version does not ensure a high charge at high engine speeds, it has been replaced by a single-stage intake manifold which rectifies this shortcoming. The intake manifold is made out of plastic, a material that provides a wide range of design options as well as thermal benefits. Compared with cast metal, plastic is a poor conductor so that the new intake manifold does not get as hot. Consequently the intake air is cooler – a benefit that pays dividends in terms of even better cylinder charging.

To offset the fundamental limitations of the single-stage intake manifold at engine speeds below 4000 rpm, the camshaft position has been advanced by five degrees both on the intake and exhaust sides. The Mercedes specialists were able to dispense with "more racing-styling" camshaft tuning to increase output since the new intake manifold enables the intake valves to close earlier thanks to its modified flow characteristics. The high running quality of the six-cylinder engine has thus been retained both at idle speed and under partial load.

The higher engine speeds also necessitate modifications to the valves and valve timing: the new sports engine uses lightweight valves made out of ultra-high-strength and high-temperature-resistant steel. The sodium-cooled valve stems for the exhaust valves have a 3.4-millimetre bore.

The conical springs used to control the valves are typical features of a high-revving engine. Since conventional cylindrical springs tend to build up natural frequency vibration from certain engine speeds, they do not fully close the valves. By contrast, conical springs offer heavily dampened natural vibration characteristics and reliably close the valves even at high engine speeds. The larger fitting length of conical



springs, an enhanced intake port for optimum charging and minor modifications to the water jacket ultimately also led to the need for a new cylinder head. Other technical modifications include sturdier roller-type cam followers and a sprocket configured as a trioval, i.e. the sprocket is not round but has a barely noticeable triangular shape that effectively combats vibration in the chain drive which can occur above speeds of 6300 rpm.

Powerful sound and automatic double-declutching function

The new sports engine in the SL 350 shows its qualities not only with its instant power delivery but also its decidedly throaty sound. The standard-fit 7G-TRONIC seven-speed automatic transmission adds to the sound of the SL 350, as the engine management system automatically double-declutches during downshifts. As well as producing an extremely sporty sound, this function also has entirely practical benefits: since the double-declutching equalises the rotational speeds of the crankshaft and transmission, the load-change reactions are reduced, and the gear change is smoother and more harmonious as a result. In other words, sporty sound goes hand in hand with enhanced safety in the new SL 350.

The use of the powerful sports engine also requires modifications to the brakes on the SL 350: the V6 sports car is now fitted with internally ventilated disc brakes all-round.

Fuel savings of up to 0.4 litres with the V8 and V12 engine

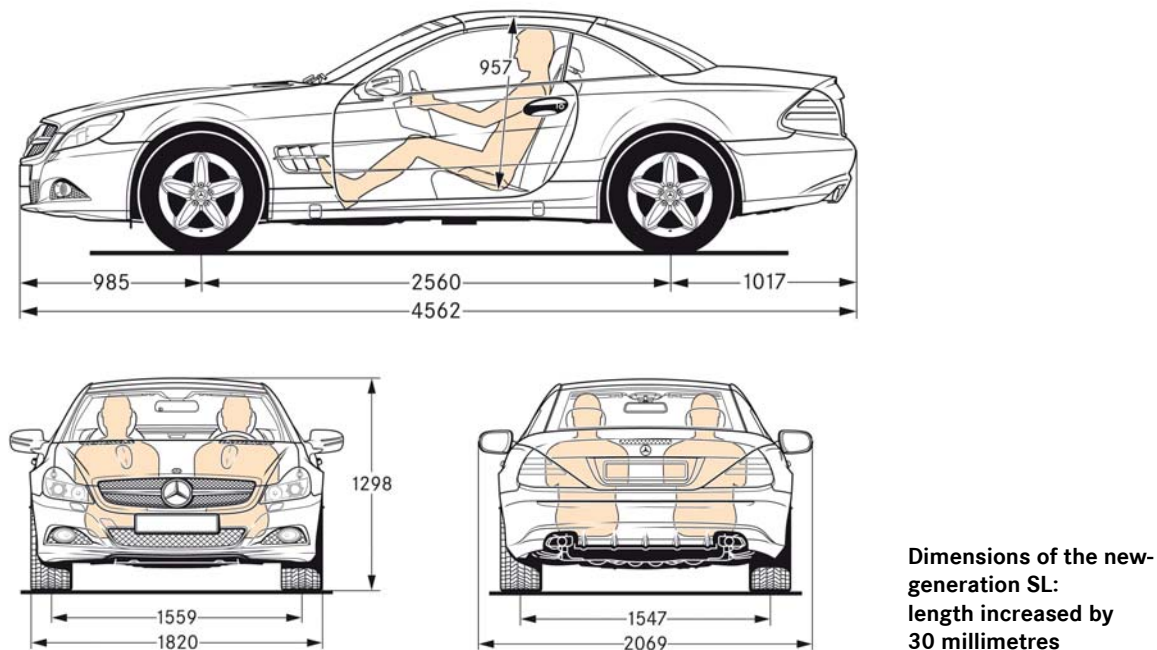
The newly developed eight and twelve-cylinder engines, available in the SL-Class since 2006, will remain a firm fixture in the line-up. Mercedes specialists have fine-tuned the units down to the smallest detail, managing to cut NEDC fuel consumption by 0.3 to 0.4 litres per 100 kilometres. Key engine data, performance and fuel consumption figures for the SL models at a glance:

	SL 280	SL 350	SL 500	SL 600
Cylinders	V6	V6	V8	V12
Displacement	2996 cc	3498 cc	5461 cc	5513 cc
Rated output	170 kW/231 hp	232 kW/316 hp	285 kW/388 hp	380 kW/517 hp
Rated torque	300 Nm at 2500 - 5000 rpm	360 Nm at 4900 rpm	530 Nm at 2800 - 4800 rpm	830 Nm at 1900 - 3500 rpm
0 - 100 km/h	7.8	6.2	5.4	4.5
Top speed	250	250*	250*	250*
Comb. fuel consumption	9.4	9.9	11.9	13.9

*Electronically limited

New generation SL with longer, wider body

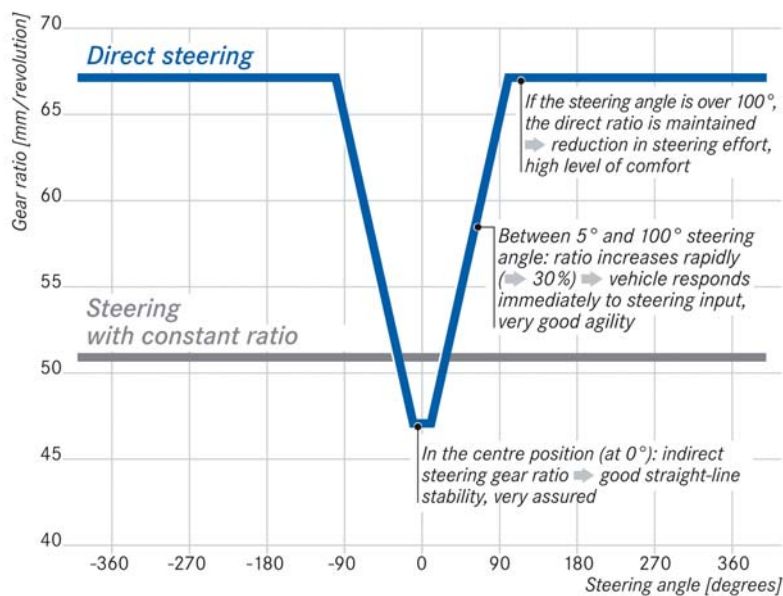
Thanks to the new, decidedly sporty design with the pronounced V-shape of the front section, the new-generation SL is 30 millimetres longer than the previous model. The vehicle width has increased by 36 millimetres, due to the use of the much larger exterior mirrors which enhance driver safety. Wheelbase, track widths and interior dimensions remain unchanged.



Direct-steer system with sporty, dynamic ratio

The steering provides the most important link between driver and car. The set-up not only affects safety and comfort but also the car's agility. Consequently, the Mercedes engineers have once again devoted a great deal of time to this component. The result is a technology that enables Mercedes customers to take the sporty credentials of the SL to new heights: the optional direct-steer system with variable servo assistance.

This innovation lives up to its name in every respect by providing a more direct response on bends and even more agile handling – in a nutshell: more driving pleasure. The direct-steer system builds on the benefits of the standard-fit speed-sensitive power steering on board the SL by delivering significantly enhanced handling dynamics and, as in the past, the speed-sensitive power steering function which requires lower steering forces when driving slowly, manoeuvring or parking.



Ratio graph for the direct-steer system: noticeably better agility from as low as five degree steering angle.

New features include a variable rack ratio, which adjusts in line with the steering angle, increasing sharply as soon as this reaches five degrees (see graphic) so that the driver only has to move the steering wheel slightly when cornering: the SL responds more spontaneously than with a constant ratio steering set-up. And so the driver literally has even better control of the vehicle.

The direct-steer system has been set up precisely so that its sporty, dynamic rack ratio makes itself positively felt particularly when handling and agility are most called for: on winding country roads, in other words at medium speed and medium steering angle.

By contrast, the benefits of the tried-and-trusted speed-sensitive power steering are retained in other handling situations and are even augmented in certain cases: for instance, the new Mercedes steering can be set up with an even more indirect ratio in the centre position than previous steering systems, providing the driver with a very assured steering feel at high speed, while improving straight-line and directional stability. When driving slowly or parking, the new technology combines with the speed-sensitive power steering to provide even more comfort than before because the direct ratio further reduces the steering effort required.

Enhanced safety when driving at night thanks to adaptive headlamps

High-power bi-xenon headlamps are part of the standard specification for the new-generation SL. They combine minimum power consumption with maximum light yield, contributing significantly to road safety when driving in the dark. Mercedes-Benz also offers the Intelligent Light System based on bi-xenon technology, which further improves the driver's range of vision through appropriate headlamp activation. The five lighting functions are geared to typical driving and weather conditions, and come on automatically depending on the speed or steering angle.

Instead of the existing low-beam headlamp, the new country mode light function is used. It illuminates the left-hand edge of the road more widely and brightly so that the driver has a better view of both sides of the road. The driver's range of vision is increased by around ten metres. The other lighting functions in the Intelligent Light System include:

- **Motorway mode:** switched on automatically at speeds above 90 km/h and increases the output of the bi-xenon lamps by three watts to 38 watts. Once 110 km/h is reached, the headlamp setting is also modified – illuminating the entire width of the road to a distance of around 120 metres. In the centre of this cone of light the driver can see around 50 metres further than with conventional low beams.

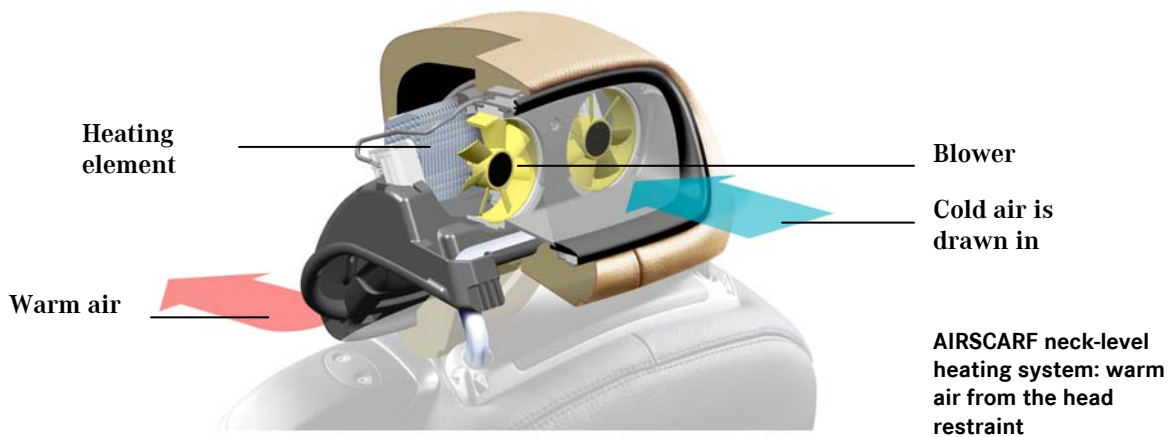
- **Active light function:** the bi-xenon headlamps instantly swivel to the side when the headlamps are set to either main or low beam when the driver enters a bend, increasing the range of visibility by around 25 metres on a sweeping bend with a radius of 190 metres.
- **Cornering light function:** this lighting function is activated if the driver sets the indicator or turns the steering wheel at a speed below 70 km/h. The range of side visibility ahead of the SL is increased by around 30 meters at an angle of 65 degrees – a visible boost to safety at junctions or on slip roads as well as on tight bends.
- **Enhanced fog lamps:** this new lighting function is activated whenever the rear fog lamp is switched on and the SL is not travelling faster than 70 km/h. The headlamp on the driver's side is swivelled outwards and the light cone lowered. This provides wider illumination of the road and reduces backglare in fog, enabling the driver to follow the course of the road more easily in the fog.

AIRSCARF neck-level heating system integrated into the head restraint

A look inside leaves you with a distinct impression of sportiness and comfort - the second virtue of the SL-Class. No other sports car offers this perfect balance of sportiness and long-distance comfort. The Mercedes designers and engineers have managed to raise the quality bar even further for the new-generation SL in these areas thanks to their meticulous attention to detail and state-of-the-art technology.

One innovation serves as an example of the kind of technology available exclusively from Mercedes-Benz: AIRSCARF. This invention allows owners of a Mercedes roadster to enjoy open-air motoring for longer, even when other cabriolet fans have long since put the roof up. The optional neck-level heating system provides the option of open-top motoring even in late autumn or winter by creating an invisible "scarf" that keeps the head, neck and shoulders warm.

This system celebrated its world premiere in the SLK-Class in 2004 and has since proved a very popular option. The technology has been modified and enhanced for the new-generation SL so that the heating is now incorporated in the head restraints instead of the seat backrests as on the SLK.



The AIRSCARF principle is as simple as it is ingenious: two electric ventilators in the head restraint suck in cold air from behind and pass it through an electric heating element rated at 200 watts. A plastic duct then feeds the warm air to a specially designed ventilation outlet at the front of the head restraint. Developed by Mercedes specialists, the system delivers warmth close to the occupants, thus ensuring pleasant temperatures at driver and front passenger head height even if a wintry breeze is buffeting the roadster. Even after driving only a short distance, a pleasant temperature zone forms around the shoulders, neck and head - like a scarf of warm air.

The major benefits of this innovative Mercedes technology include low space requirements and the consistent heat output in particular. The heating element is based on advanced PTC technology (Positive Temperature Coefficient): an electric current is passed through ceramic particles which heat up in a matter of seconds and then continue to emit heat.

AIRSCARF is started by selecting one of the three different temperature settings using the switch in the door lining. With the vario-roof open the system

automatically controls the blower output based on the road speed so that the neck-level heating system always optimally distributes the warm air.

Standard-fit COMAND system with CD/DVD changer and Music Register

And when it comes to infotainment the SL-Class is cutting-edge. Mercedes-Benz has enhanced the standard-fit COMAND system and added extra functions. The unit now not only combines car radio, CD/DVD changer and telephone functions but also features Music Register, a slot for SD memory cards and a Bluetooth interface for a mobile phone. The unit is easy to operate thanks to a large (6.5 inch), high-resolution colour display. The new functions in detail:

- **CD/DVD changer:** the COMAND unit features a six-disc changer that plays both audio CDs and audio DVDs as well as video DVDs. The unit is MP3-compatible. The high-resolution colour display serves as a screen for playing DVD films - although not whilst the car is being driven, for obvious safety reasons.
- **Bluetooth:** the Bluetooth interface integrated in the COMAND system wirelessly links a mobile phone to the hands-free system in the SL. The mobile phone can be stored in the centre console or in your pocket; it is operated using the keypad and the colour display on the COMAND unit.
- **SD memory cards:** "Secure Digital Memory Cards" (SD cards for short), which measure just a few centimetres, can be used as additional music storage media. The new COMAND system comes with an SD card slot on the front.

Europe-wide navigation and voice-operated control system in the COMAND APS

Mercedes-Benz also includes a Europe-wide navigation system with the optional COMAND APS with the associated data stored on a hard disc (40 gigabytes). This enables route information to be processed very quickly. The system also includes Music Register, allowing Mercedes customers to store around 1000 MP3 or WMA tracks so they can put together their own music selection for the journey. The tracks copied to the COMAND APS system from a CD, DVD or memory card are automatically recognized thanks to a stored database ("Gracenote") and indicated on the colour display. The names of the artists are also included on the display.

The LINGUATRONIC voice-operated control system is also part of the standard specification for COMAND APS. Mercedes-Benz unveiled this system in 1996 and has been enhancing functions and features ever since. The voice-operated control system in the new-generation SL is the most sophisticated ever thanks to the whole-word recognition capability. So the driver no longer has to painstakingly spell everything out but can simply say each particular word when entering a destination, selecting a radio station or calling up a name included in the phone book.

The sound output is digitised during the brief dialogue, converted into a frequency spectrum and finally analysed. Within a matter of milliseconds the computer extracts various features from the voice output and identifies the phonemes - the distinct sound units that make up speech. The software instantly verifies each sound, combines the various phonemes, compares them against the contents of a stored phoneme dictionary and also works out the acoustic probability of the word. Consequently, the system can distinguish even minute differences in pronunciation; for instance, it can differentiate between the words "street" and "straight". The system includes the phonemes for six different languages.

While the first-generation LINGUATRONIC required a computer with a mere 512 kilobytes of storage capacity back in 1996, the voice-operated control system now needs over ten megabytes.

Media Interface in the centre console for iPod & Co.

Music Register and the memory card slot included with COMAND APS demonstrate that entertainment was an important issue when developing the new audio units: SL owners can put together their individual music selection and take it with them on an SD card. For the first time an iPod, USB stick or other external audio devices can be easily connected up to the infotainment system in the SL, courtesy of a newly developed universal interface in the centre console; all you need is a compatible cable that is available from the Mercedes accessories range.

Dubbed the "Media Interface", this new feature is more than just an electronic "socket". The interface also includes an ECU that connects the external music storage media to the on-board electronics and the roadster's control system. This has the advantage that the iPod tracks are displayed in the instrument cluster and on the colour display in the centre console and can be conveniently selected using the buttons on the multifunction steering wheel. Moreover, the audio device's battery is also charged up as long as the portable music storage media is connected to the car via the Media Interface.

Perfect listening experience even with the vario-roof down

The new-generation SL literally sets the tone among sports cars with its new (optional) surround sound system. "Logic7" is what the specialists from Harman Kardon call the technology that gives the driver and front passenger the impression they are sitting in the middle of a concert hall, a jazz club or a rock concert arena. This impressive musical feast of surround sound can be experienced even with standard stereo recordings although it reaches the height of perfection with the very latest 5.1 recordings: "Dolby Digital 5.1", "DTS 5.1" and "MLP 5.1" are formats originally developed for cinema films, but which are now also used for music recordings thanks to their crystal-clear surround sound.

A 510-watt DSP amplifier distributes the music output, controlling the frequency response to generate a balanced listening experience at all times. The system responds dynamically to road speed and for the first time factors in whether the vario-roof on the SL is up or down. So passengers in the Mercedes sports car can enjoy a perfect stereo listening experience even under the open sky – your very own open-air concert on wheels.

High-revving design plus large displacement: naturally aspirated V8 made by Mercedes-AMG

- **AMG 6.3-litre V8 engine with thoroughbred motorsport technology**
- **Innovative TWAS coating on the cylinder walls**
- **AMG sports exhaust system for typical AMG eight-cylinder vocals**
- **Large coolers for optimal sustained performance**
- **Powerful V8 engines as an AMG tradition**

The new Mercedes-Benz SL 63 AMG is powered by the most muscular version of the AMG 6.3-litre V8 engine introduced in 2005. As in the high-performance S 63 AMG and CL 63 AMG, this state-of-the-art eight-cylinder power unit delivers an output of 386 kW/525 hp at 6800 rpm and a maximum torque of 630 Newton metres in the Roadster. Thanks to its large displacement of 6208 cubic centimetres, this completely in-house development by AMG generates around 20 percent more torque than comparable naturally aspirated engines in this performance class.

The AMG 6.3-litre V8 engine uniquely combines a high-revving design with a large displacement, obtaining the best of both worlds: exhilarating liveliness accompanied by a high torque at low engine speeds. The driver of the SL 63 AMG experiences the decidedly sporty character of the engine in the form of great agility and dynamic responsiveness in all engine speed ranges. The AMG V8 already delivers 500 Newton metres to the crankshaft at 2000 rpm, while the maximum of 630 Newton metres is on tap at 5200 rpm – more than any other naturally aspirated engine in this output and displacement class. In short, the AMG eight-cylinder unit guarantees dynamic acceleration, rapid intermediate sprints and sheer driving pleasure at the highest level.

With its sporty AMG exhaust note which was designed during an extensive series of tests, the eight-cylinder unit from Affalterbach offers the excitement of a naturally-aspirated, high-revving V8 engine in unmistakable audible and tangible

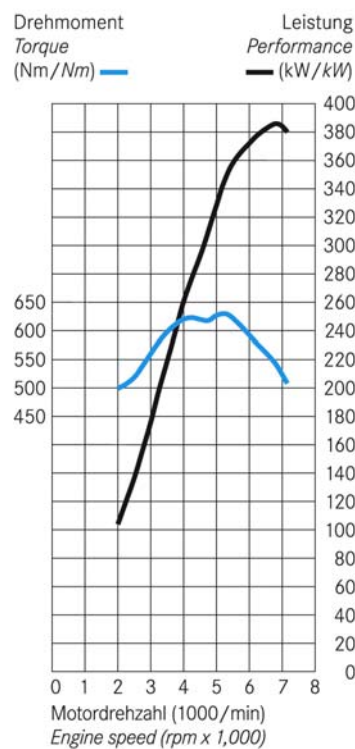
form at low, medium and high engine speeds. The SL 63 AMG accelerates from zero to 100 km/h in 4.6 seconds, and has a top speed of 250 km/h (electronically limited).

Key data at a glance:

		SL 63 AMG
Cylinder arrangement/ valves per cylinder		V8/ 4
Cylinder angle	degrees	90
Displacement	cc	6208
Bore x strokemm	mm	102.2 x 94.6
Distance between cylinders	mm	109
Compression ratio		11.3 : 1
Output	kW/hp	386/525
at	rpm	6800
Output per litre	kW/hp	62.2/84.6
Max. torqu	Nm	630
at	rpm	5200
Torque per litre	Nm	101.5
Max. engine speed	rpm	7200
Engine weight (dry)	kg	202
Power/weight ratio	kW/kg	1.94
Fuel consumption combined	l/100 km	13.9
Acceleration 0-100 km/h	s	4.6
Max. speed	km/h	250*

*Electronically limited

Mercedes-Benz SL 63 AMG
Leistungsdiagramm
Power Output Graph



Technology transfer from motorsport

Made completely from high-strength aluminium, this naturally-aspirated V8 engine has a wealth of exciting features derived from motorsport, and impressively documents the successful motor racing history of AMG. Apart from the large overall displacement, the extremely high output and torque are above all due to the sophisticated intake system. Its major characteristics are large cross-sections, the streamlined design of the entire intake and exhaust tract, and the vertical arrangement of all ducts in line with motor racing practice. The patented variable intake manifold of magnesium, which has two parallel-action internal throttle flaps, is a world first. The combined action of these components, which are highly unusual in regular engine production, ensures excellent cylinder charging thanks to the short distances between the throttle flaps and the combustion chambers.

Innovative TWAS coating on the cylinder walls

The 32 valves in the cylinder heads are operated by bucket tappets for a rigid valve train and high engine speeds – a technology which has proved its worth in motor racing. Continuous adjustment of the camshafts on the intake and exhaust sides ensures that the eight combustion chambers are optimally supplied with the fuel/air mix. The interior of the AMG 6.3-litre V8 conceals yet another genuine world first, however: it is the world's first regular production engine to feature a special TWAS (twin wire arc sprayed) coating on the cylinder walls, a new process which produces outstandingly low friction.

Motor racing genes are once again obvious in the crankcase: as in the supercharged AMG V8 engine for the Mercedes-Benz SLR McLaren, the engineers and technicians opted for a particularly rigid bedplate design with closed-deck technology. Special, cast-in steel components ensure even more rigidity, a reliable oil supply in all day-to-day operating situations and optimal long-term durability.

Electronically controlled fuel supply for great agility

The breathtaking agility and responsiveness of the V8 engine to movements of the accelerator is also due to the electronically controlled fuel supply. Featuring newly developed components, the system operates at a demand-responsive pressure of 3.8 to 5.0 bar. The fuel pressure is variably and instantly adjusted depending on the performance requirement and ambient temperature. The engine electronics execute commands from the accelerator pedal within milliseconds, leading to outstanding responsiveness and sporty overrun characteristics in all load and engine speed ranges.

For optimal sustained performance the SL 63 AMG is equipped with a particularly efficient water cooling system as well as large engine and transmission oil coolers. Located behind the apertures in the AMG front apron, these coolers guarantee non-critical operating temperatures at all times – even under the toughest conditions on the racetrack. The AMG sports exhaust system with two chrome-plated, oval twin tailpipes is responsible for the characteristic eight-cylinder sound – whether the Vario-roof is open or closed. The tri-metallic coating used in the catalytic converters results in a faster response from a cold start, more efficient emission control as well as superior long-term durability. The SL 63 AMG fulfils all standard exhaust emissions limits such as EU 4 and the specific requirements of the U.S. market (LEV-II, On-Board Diagnosis II and oxygen sensor diagnosis).

Completely in-house development from Affalterbach

In design terms the eight-cylinder from Mercedes-AMG is a completely in-house development which has no characteristics or shared components in common with other eight-cylinder units from Mercedes-Benz. The 6.3-litre unit differs from previous AMG V8 engines in its bore/stroke ratio, the distance between cylinders, the crankcase concept, the sophisticated intake and exhaust tract and the valve train.

Engines are traditionally hand-assembled at Mercedes-AMG – and this also applies to the AMG 6.3-litre V8 of the new SL 63 AMG. In the ultra-modern AMG engine workshops opened in 2002, a single technician assembles the complete engine by hand according to the "one man, one engine" philosophy, and according to the most stringent quality standards – as witness his signature on the engine's AMG badge.

Successful history of high-performance AMG V8 engines

AMG V8 engines have always been in a class of their own. The first highlight in the company's history was the 6.8-litre, 309 kW/ 420 hp V8 racing engine in the legendary 300 SEL 6.8 AMG of 1971. At the 24-hour race in Spa-Francorchamps this fast Mercedes saloon immediately secured a highly acclaimed class victory and second place overall. Other milestones in the history of AMG include the first four-valve V8 of 1984, which generated 250 kW/340 hp from a displacement of five litres, the 6.0-litre eight-cylinder with 283 kW/385 hp and the supercharged AMG 5.5-litre V8 of the SLR McLaren, with a peak output of up to 478 kW/650 hp.

Innovative new development for exclusive driving pleasure

- **Compact start-up clutch for great agility**
- **Four drive modes for maximum driving pleasure**
- **Fast gearshifts with uninterrupted tractive power**
- **Automatic double-declutching function for even more emotional appeal**
- **New AMG DRIVE UNIT with Race Start function**

The AMG SPEEDSHIFT MCT 7-speed sports transmission is an all-new, unique concept available exclusively in the new Mercedes-Benz SL 63 AMG. At the heart of this newly developed transmission lies a wet start-up clutch, which runs in an oil bath and replaces the previous torque converter. The resulting direct connection to the powertrain, together with the double-declutching and Race Start functions, guarantees an extremely emotional, supremely dynamic driving experience.

The AMG SPEEDSHIFT MCT 7-speed sports transmission is a newly developed and unique power transfer system. It combines the sporty, direct and agile feedback of a manual transmission and the maximum convenience of an automatic transmission. Fitted with seven speeds, four drive modes, a double-declutching and Race Start function, the AMG SPEEDSHIFT MCT 7-speed sports transmission offers unprecedented versatility. MCT stands for Multi-Clutch Technology and only employs clutch elements to perform gearshifts. Vibrations are effectively eliminated by a new, two-stage torsion damper, with resulting benefits in perceived passenger comfort.

Design measures for a particularly low weight

The high-tech transmission is designed for high torque and maximum revs up to 7200 rpm. It also comes with sufficient reserves even under the highest loads thanks to its high-performance oil cooling system. The AMG sports transmission

also impresses with its low weight: at 80 kilograms it even betters the AMG SPEEDSHIFT 7G-TRONIC automatic transmission used in other AMG high-performance cars. This is made possible by dispensing with a torque converter and the use of lightweight magnesium for the transmission housing. Low weight and compact dimensions are also aided by the newly developed, fully integrated transmission control system. The highly efficient electronic control unit is integrated into the sump to save space, and communicates directly with the engine control unit. An 80 MHz processor ensures particularly rapid monitoring and control of all transmission processes.

The AMG SPEEDSHIFT MCT 7-speed sports transmission has been developed jointly by Mercedes-AMG GmbH and Daimler AG, although it will be used exclusively in AMG high-performance vehicles. It is produced at the Mercedes-Benz Esslingen-Hedelfingen production facility, Europe's largest manufacturer of planetary gear sets.

Compact wet clutch for great agility

At the heart of the new AMG SPEEDSHIFT MCT 7-speed sports transmission lies the wet start-up clutch, which runs in an oil bath and replaces the previous torque converter. Thanks to its low rotational inertia, the transmission responds instantaneously and dynamically with no slip. Accelerator pedal movements trigger an instant traction response. Fitted with four drive modes: "C" (Comfort), "S" (Sport), "S+" (Sport plus) and "M" (Manual), the transmission provides gearshifting with no loss of tractive force and supports customised control strategies for maximum driving pleasure.

In "C" mode the vehicle always starts off in second gear and gearshifts are comfortable, coupled with a "soft" accelerator response set-up for outstandingly smooth power transfer. In "S" mode the engine and transmission interact with more "bite": the engine speed is allowed to reach a higher level in each gear; the downshifts also feel more spontaneous. The gearshifts are also around 20 percent faster than in "C" mode. Switching to "S+" mode cuts another 20 percent off shift times, while "M" is the sportiest mode: here the AMG 6.3-litre V8 engine has even

more bite, added to which the transmission shifts gear another 10 percent faster – a reduction of 50 percent compared with “C” mode. In “M” mode the gearshifts take just 100 milliseconds.

Automatic double-declutching function for even more emotional appeal

Ultra-fast, spontaneous multiple downshifts are another forte of the new MCT sports transmission. For instance, kickdown lets you move straight from seventh down to fourth gear or from fifth to second. In the “S” (Sport), “S+” (Sport plus) and “M” (Manual) modes the automatic double-declutching function is active. Every manual or automatic downshift is accompanied by precisely metered double-declutching – from “S” through “S+” to “M” incrementally. And this not only adds to the driver's emotional experience: the virtually load-free downshift minimises load-change reactions, which pays dividends particularly when braking into a bend on the racetrack.

In manual “M” mode the driver also benefits from the high torque of the V8 engine, as there is no automatic downshift under full load and kickdown; the transmission remains steadfastly in the selected gear. Moreover, the AMG MCT sports transmission does not perform an automatic upshift in manual mode when the rev limit is reached. In “M” mode the AMG instrument cluster displays the current gear and alerts the driver to the need for an upshift just before the needle reaches the red zone. This means that a particularly sporty driver can use the superior performance potential to its fullest extent. When approaching the lower rev limit, e.g. when braking the vehicle, there is an automatic downshift to the next lower gear.

AMG DRIVE UNIT with innovative Race Start function

The new AMG DRIVE UNIT is the central control unit for the AMG SPEEDSHIFT MCT 7-speed sports transmission and all driving dynamics functions. The driver can change gears either using the new AMG selector lever with its leather/ carbon-fibre finish, or via the AMG steering-wheel shift paddles. On the left next to the selector lever is the electronic rotary switch to select the four drive modes

including activation of the new Race Start function. Underneath are three buttons for additional functions: the first controls the ESP[®] function, the second the ABC suspension system. The third adorned with AMG lettering is used to store the selected transmission drive mode and the suspension set-up. Briefly pressing the AMG button brings up the configuration options, whilst holding down the button allows you to program the required set-ups - this is confirmed by an acoustic signal. The current settings may be viewed in the AMG instrument cluster by pressing the AMG button at any time.

The Race Start function takes driving dynamics to an entirely new level: it enables the SL 63 AMG driver to call on maximum acceleration, while ensuring optimum traction of the driven wheels. While the vehicle is at a standstill, the driver needs to activate the ESP[®] sports function and press the brake pedal with their left foot. Having preselected the Race Start program using the rotary switch, a confirmation message comes up on the AMG central display. The driver then simply needs to confirm the Race Start function by pulling the "Up" shift paddle once, fully depressing the accelerator and taking his foot off the brake. The optimum start-up engine speed is set fully automatically and the SL 63 AMG accelerates away in an instant - all the way up to top speed, if so required. The driver does not need to shift gear manually; the AMG transmission changes gear with lightning-fast shift times.

Superlative handling dynamics and outstanding long-distance comfort

- **New suspension set-up and optimised steering**
- **AMG sports suspension based on Active Body Control**
- **3-stage ESP® for precise handling dynamics**
- **Generously dimensioned braking system and 19-inch light-alloy wheels**

Exhilarating agility, high cornering speeds, optimal roadholding and the long-distance comfort typical of a Mercedes is what sports car enthusiasts expect of an SL made by AMG. The technical basis for this convincing result is the suspension technology of the SL 63 AMG: at the front a state-of-the-art four-link suspension and at the rear the tried-and-tested multi-link independent suspension – both with a thoroughly revised, AMG-specific configuration. The front axle bearings, the spring links and the torque strut along with individual strut bearings at the rear have been retuned to deliver greater agility and shorter stopping distances. In partnership with the optimised speed-sensitive power steering the SL 63 AMG now feels even more direct and livelier – enabling the driver to fully utilise the linear steering and oversteer/understeer characteristics typical of a sports car, especially on winding roads or a private racetrack.

The AMG sports suspension based on Active Body Control has been further enhanced and not only comes with new spring and damper tuning but also completely modified elastokinematics. The AMG sports suspension based on Active Body Control also enables the suspension set-up to be customised. At the push of a button, the driver can select a sporty, firm response with reduced roll angles, or go for a comfort-focused setting for excellent comfort on long journeys. The AMG sports suspension based on Active Body Control (ABC) almost completely eliminates body movements when moving off, cornering and braking. Bends are taken with drastically reduced body roll, while the tendency to yaw during fast evasive manoeuvres is effectively suppressed. Another special feature of Active Body Control is variable yawing moment distribution between the front

and rear axles, which the system performs automatically depending on the road speed. This provides even greater stability, particularly at high speeds. To reduce aerodynamic drag, ABC gradually lowers the suspension by up to 15 millimetres between 65 and 100 km/h. Should more ground clearance be required on poor road surfaces, the driver is able to raise the suspension level by a maximum of 50 millimetres at the touch of a button up to a speed of 30 km/h. Using the load adaptation function, the current vehicle weight can be included in the calculations performed by the active suspension control system. This means that the SL 63 AMG has identical handling dynamics even when fully laden.

3-stage ESP® with a sports function as a new feature in the SL 63 AMG

The Electronic Stability Program ESP® is the perfect partner for the high performance of the SL 63 AMG. The new 3-stage ESP® with a sports function provides three different settings and is the logical development of the AMG ESP® philosophy. The driver can choose between the settings “ESP ON”, “ESP SPORT” and “ESP OFF” by pressing the ESP® button in the AMG DRIVE UNIT – the activated setting is shown in the central display in the AMG instrument cluster. In “ESP ON” mode, any tendency for the vehicle to become unstable is countered by braking intervention at one or more wheels, as well as a reduction in engine torque.

Briefly pressing the ESP® button activates “ESP SPORT”. In this mode, the selective braking intervention and accompanying reduction of engine torque allows higher dynamic forces to occur, for example corresponding angles of drift – and the driver of the SL 63 AMG benefits from even more driving pleasure. The functions of ESP® are fully restored when the brake pedal is operated.

Longer pressure on the ESP® button activates “ESP OFF”. In this case there is no dynamic control intervention and the engine torque is not reduced – with a further increase in driving enjoyment. “ESP OFF” should only be used by experienced drivers on private racetracks. In this mode too, operating the brake pedal restores all the functions of ESP®. ESP® traction logic is active in all three modes. Should a driven wheel begin to spin, specific braking intervention

practically duplicates the effect of a mechanical differential lock, enabling the engine power to be transferred to the road even more efficiently.

AMG high-performance composite braking system at the front

The AMG high-performance braking system rises to the exacting requirements associated with consummate driving dynamics. The front wheels are equipped with internally ventilated, perforated 360 x 36-millimetre composite disc brakes with six-piston aluminium fixed callipers, while deceleration at the rear comes courtesy of internally ventilated, perforated 330 x 26-millimetre brake discs with four-piston fixed callipers. The result is very short stopping distances, outstanding sensitivity and remarkable resistance to fading. The brake callipers are silver-painted and bear AMG lettering.

Braking system data at a glance:

SL 63 AMG	
Front axle	
Brake callipers	6-piston aluminium fixed callipers
Brake discs	Composite, internally ventilated, perforated
Diameter	360 mm
Thickness	36 mm
Rear axle	
Brake callipers	4-piston fixed callipers
Brake discs	Internally ventilated, perforated
Diameter	330 mm
Thickness	26 mm

19-inch AMG light-alloy wheels in a new triple-spoke design

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The 19-inch AMG light-alloy wheels with their alluring triple-spoke styling and titanium grey finish plus high-sheen star on the centre of the wheel are also new. 255/35 R 19 (front) and 285/30 R 19 (rear) tyres are fitted to the 8.5 and 9.5-inch-wide wheels. The 19-inch AMG light-alloy wheels with their striking design blend in harmoniously with the new AMG bodystyling.

Unmistakably definitely AMG, through and through

- **New AMG bodystyling with striking design features**
- **High-grade interior trim in genuine carbon-fibre**
- **AMG nappa leather sports seats with multicontour function**
- **New AMG instrument cluster with AMG main menu**

The innovative technology of the new SL 63 AMG is reflected in the athletic and dynamic lines of the AMG bodystyling. At the same time the new high-performance roadster is visually more distinguishable from the series production SL-Class than ever before. The distinctive AMG bonnet more than hints at the unique power unit underneath, as does the “6.3 AMG” lettering on the matt-silver-painted AMG trim panels on the front wings. A striking and unmistakable impression is also made by the new-look front apron with a more pronounced wedge shape, black-painted radiator grille, larger cooling air intakes and lower transverse fin painted in black. The hot air from the additional engine oil cooler in the front wheel arch escapes through side air outlets in the front apron. Bi-xenon headlamps with their dark surrounds, and large round fog lamps set well to the side in chrome surrounds also emphasise the vehicle's width. The exterior mirrors also have a completely new look: the side indicator repeaters are not only in ultra-fast LED technology, but also have a pronounced arrow shape.

The AMG bodystyling also includes the AMG side skirts and the powerful AMG rear apron with its characteristic black diffuser insert. A visual and acoustic feast comes in the guise of the AMG sports exhaust with two chromed twin tailpipes. The AMG spoiler lip on the boot lid reduces lift for improved handling stability at high speeds.

Interior featuring new AMG sports steering wheel with three-spoke design

The decidedly sporty aura of the SL 63 AMG continues in the interior, with an alluring combination of exclusive equipment details and a dynamic, practical look. Genuine carbon-fibre trim on the centre console and inner door panels create a luxurious atmosphere. Precise handling is assured by the new AMG ergonomic sports steering wheel in a three-spoke design. The grip area is specially shaped and covered in perforated leather, while the vertical spoke is embellished by a silver-coloured insert. The seven gears of the AMG MCT sports transmission can be shifted using the aluminium AMG shift paddles.

Behind the steering wheel is the likewise new AMG instrument cluster with its distinctive graphics, 320 km/h speedometer scale, red needles and “6.3 V8” lettering in the rev counter. As soon as the ignition is switched on, the speedometer and rev counter needles rotate in unison around the dials to their maximum values and then instantly revert to their original positions. An unmistakable signal to the driver: “Start your engine”.

AMG main menu with RACETIMER and new AMG DRIVE UNIT

The two dial instruments are shielded by a twin shroud lined in nappa leather with double topstitching. The AMG main menu integrated in the AMG instrument cluster keeps the driver fully informed. The right-hand display not only shows the currently engaged gear, but in “M” mode also an upshift recommendation: when the red sector of the rev counter has almost been reached, a flashing red display indicates the need to change up. The AMG main menu also includes the “RACETIMER”, which not only provides information on the engine oil temperature, battery voltage and lap time on the racetrack, but also shows the active transmission drive mode including the Race Start function and the selected ESP[®] mode. New, exclusive equipment for the SL 63 AMG with AMG SPEEDSHIFT MCT 7-speed sports transmission includes the AMG selector lever in a leather/carbon-fibre finish and the stylishly integrated AMG DRIVE UNIT with rotary switch for the four drive modes and buttons for ESP[®], suspension set-up and the AMG mode.

Standard-fit AMG sports seats with multicontour function

The standard specification also includes multi-way electrically adjustable AMG sports seats with multicontour and memory functions, seat heating, AMG-specific perforation pattern and seat design, and AMG badge. The fine nappa leather upholstery is available in a choice of four attractive colours:

- alpaca grey
- flamenco red
- pebble beige
- black

The extensive standard appointments also include (selection):

- AMG door sill panels in brushed stainless steel
- COMAND system
- Automatically dimming rear-view and exterior mirror on the driver's side
- Luxury seats with seat heating and ventilation
- Metallic paintwork
- Preparation for mobile phone
- Draught-stop

Infotainment: the latest multimedia technology in the centre console

The new-generation SL is also fit for the future where information, entertainment and communications technology is concerned: Mercedes-Benz has improved the standard COMAND system even further, and equipped it with additional functions. Infotainment at its finest: the multimedia unit combines the car radio with twin tuner, telephone operation, CD/DVD changer and an SD memory card slot. New features include a Bluetooth interface which wirelessly links a mobile phone to the standard hands-free system, and the 6.5-inch colour display which simplifies operation and acts as a high-resolution monitor when viewing DVD films – though for safety reasons not during a journey.

The optionally available COMAND APS system treats Mercedes customers to even more high-tech electronics. This unit is also equipped with a Europe-wide navigation system whose data are stored on a 40-gigabyte hard disc and therefore allow particularly fast route calculation. Musical enjoyment is provided by an integrated CD/DVD-changer and a music register holding around 1000 tracks in the MP3 format. Song titles and performers are automatically recognised by a stored database (Gracenote) and shown in the colour display. The standard features of COMAND APS also include latest-generation LINGUATRONIC voice control, which operates the navigation system, telephone and audio units by whole-word commands. This means that the driver need no longer spell out his commands, but merely has to say what he requires when entering a destination, selecting a radio station or choosing a name from the stored telephone directory.

For the first time there is also the option of connecting an iPod, USB stick or other external audio units to the COMAND system. A newly developed universal media interface in the centre console makes this possible. This is much more than just an electronic “socket”: the UCI (Universal Consumer Interface) also has a control unit that connects the external music files with the operating system of the SL. This means that the music stored in an iPod is also displayed in the instrument cluster and the COMAND display in the centre console, and can be conveniently selected using the keys on the multifunction steering wheel. While the portable audio unit is connected to the onboard system via the UCI, its battery is also charged.

For the ultimate onboard sound experience Mercedes-Benz can also equip the new-generation SL with the “Logic7[®]” surround sound system by Harman Kardon[®], which is also used in the S-Class and has won several quality awards in independent tests. This sound system has an output of 510 watts, and transforms the interior of the SL 63 AMG into a mobile concert hall with the help of ten high-performance loudspeakers and the latest surround technology – even when the vario-roof is open.

New: AIRSCARF three-stage neck-level heating system

The optional AIRSCARF neck-level heating system is a new addition. At the push of a button, it blows warm air through the head restraints. This Mercedes invention has been available for the SLK Roadster since 2004, and provides open-air motoring pleasure in the SL 63 AMG even if there is a chill in the air.

The system is based on two small blowers in the head restraints of the integral seats. These conduct air through an electric heating element, where it is rapidly warmed. The warm air flows from special vents in the front face of the head restraint, warming the head, neck and shoulder area of the seat occupant. The required heating level can be selected in three stages for each seat, using a switch in the door panel. An automatic control system adjusts the temperature to suit the vehicle speed, thereby optimising occupant comfort.

Safety: light for any driving and weather conditions

The Intelligent Light System familiar from the C and E-Class, which offers five different lighting functions, is now also available as an option for the SL 63 AMG. These functions are designed for typical driving and weather situations: country mode, motorway mode, enhanced fog lamps, the cornering light function and the active light function. The variably controlled bi-xenon headlamps automatically activate the different lighting functions. Motorway mode is activated in two stages from 90 km/h, and increases the driver's range of visibility by up to 60 percent.

The active light function responds to the steering angle and pivots the headlamps to the side when the driver enters a bend in the road. On an extended bend this allows him to see around 25 metres further than with conventional dipped beams. The cornering light function is automatically activated when the driver turns the wheel and/or operates the indicators at speeds below 70 km/h. This means that the cornering light function not only offers more safety when turning off at crossroads and junctions, but is also active during low-speed cornering and provides better illumination of the road verges. The enhanced fog lamps cast a

wide beam to illuminate the edges of the road, enabling the driver to find his way safely. In this way intelligent headlamp technology makes a major contribution to road safety.

Two carbon-fibre packages available as an optional extra

The dynamic appeal of the SL 63 AMG can be further enhanced with exclusive optional extras from the *AMG PERFORMANCE STUDIO*. These include:

- AMG exterior carbon-fibre package with side air outlets in front apron, exterior mirror housing, spoiler lip and genuine carbon-fibre diffuser insert in rear apron
- AMG performance steering wheel, flattened underside and smaller diameter
- AMG door sill panels, illuminated in white light
- 19-inch AMG twin-spoke forged light-alloy wheels with mixed-size tyres, 255/35 R 19 and 285/30 R 19 (only for SL 63 AMG)

The Performance Package developed in the *AMG PERFORMANCE STUDIO* is also available for the SL 63 AMG; it includes even more powerful components and is ideally suited for drivers with sporty inclinations:

- Internally ventilated composite brake discs, size 390 x 36 mm, on the front axle
- Multiple-disc limited-slip rear differential with a locking factor of 40 percent for enhanced traction
- 19-inch AMG twin-spoke forged light-alloy wheels with mixed-size tyres, 255/35 R 19 and 285/30 R 19
- AMG performance suspension based on Active Body Control
- AMG performance steering wheel with smaller diameter, flattened underside, silver-coloured aluminium shift paddles

designo range for exquisite taste

Further personalisation of the SL 63 AMG is possible with the extensive range of designo items. The exclusive designo range has enjoyed increasing popularity

since its first launch more than twelve years ago. AMG customers in particular like to opt for this unique personalisation range, and give their roadster that very personal and unusual touch.

Twelve different designo metallic paint finishes in particularly scratch-resistant nano-technology can be combined with twelve single-tone designo leather interiors – with practically no limit to personal taste. If Exclusive designo leather is specified, not only the seats and centre door panels and the lower door sections, but also the lower section of the dashboard, the instrument cluster shroud, the armrest cover, the parcel shelf and the centre console are lined in the chosen designo leather colour. The liner of the vario-roof and the A and C-pillars are lined in anthracite, alpaca grey or pebble beige Alcantara. designo wood trim is also available in natural matt oak grain, as well as the unique designo stone trim of genuine granite: Labrador blue pearl and Star Galaxy.

Other optional extras for the SL 63 AMG (selection):

- DISTRONIC proximity control
- Remote boot lid locking
- Intelligent Light System
- KEYLESS-GO
- Tyre pressure control system
- TV tuner for analogue/digital TV reception

Vario-roof: from a coupé to a roadster in just 16 seconds

Mercedes-Benz set new trends in open-top car development with the vario-roof, which celebrated its world premiere in the Mercedes-Benz SLK in 1996. At the touch of a button, this folding hardtop turns the SL 63 AMG into a weatherproof, year-round car with the day-to-day practicality and noise comfort of a coupé. Turning the SL 63 AMG into a coupé (or vice versa) takes only 16 seconds. Customers wanting a touch of typical open-air roadster feeling even with the roof closed can opt for a glass version of the vario-roof, which treats the occupants to unique all-round visibility. This optional extra creates a large glass surface extending from the windscreen and across the roof area to the rear window.

Poise and assurance to perfection

- **AMG 6.0-litre V12 biturbo engine with 450 kW/612 hp and 1000 Nm**
- **AMG sports suspension based on Active Body Control**
- **AMG high-performance braking system and new 19-inch forged wheels**
- **Nappa leather upholstery in a new AMG V12 diamond-pattern design**

Top of the line in the exclusive 12-cylinder roadster segment is the SL 65 AMG. Its AMG 6.0-litre V12 biturbo engine produces 450 kW/612 hp with maximum torque of 1000 Newton metres – unrivalled figures even four years after the market launch. The SL 65 AMG accelerates from 0 to 100 km/h in just 4.2 seconds, impressive testimony to the outstanding power of the AMG V12 engine; top speed is 250 km/h (electronically limited).

This exclusive dynamism is down to the outstanding power of the 5980cc AMG V12 engine developed by Mercedes-AMG: the peak output of 450 kW/612 hp is continuously available between 4800 and 5100 rpm, while the electronically limited maximum torque of 1000 Newton metres is on tap between 2000 and 4000 rpm. At just 1000 rpm the AMG V12 biturbo engine already delivers a torque of 570 Newton metres to the crankshaft, and 750 Newton metres at 1500 rpm.

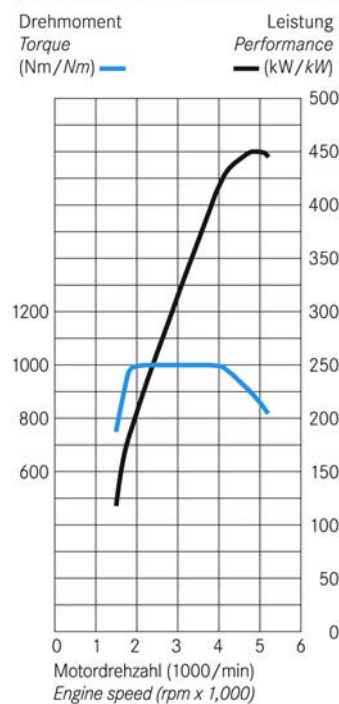
Fulminating and effortless acceleration at the highest speeds is just as much a strength of the AMG twelve-cylinder as cruising along serenely in a high gear. Both the instant responsiveness and almost vibration-free, refined running impress in equal measure, guaranteeing the long-distance comfort typical of a Mercedes. Opening the bonnet reveals a technical masterpiece: the engine cover of deep-drawn aluminium and carbon-fibre reinforced plastic (CRP) is a visual delight.

Key data of the SL 65 AMG at a glance:

		SL 65 AMG
Cylinder arrangement		V12
valves per cylinder		3
Displacement	cc	5980
Bore x stroke	mm	82.6 x 93.0
Compression ratio		9.0 : 1
Output	kW/hp	450/612
at	rpm	4800-5100
Max. torque	Nm	1000*
at	rpm	2000-4000
Fuel consumption		
combined	l/100 km	15.1
Acceleration 0-100 km/h	s	4.2
Max. speed	km/h	250*

*Electronically limited

Mercedes-Benz SL 65 AMG
Leistungsdiagramm
Power Output Graph



Twelve-cylinder biturbo engine with know-how from motor sports

During the concept and design phases of the V12 engine the AMG engineers made full use of the know-how gained from their many years of motor racing tradition. The AMG V12 engine features a finely balanced crankshaft of higher-strength material, forged pistons made from a special, extremely temperature and pressure-resistant material, a highly efficient oil-spray cooling system with a separate nozzle for each piston, and larger piston bolts. The main and connecting rod bearings are also made from a higher-grade material to compensate temperature and pressure peaks more efficiently.

The charge cycle in the cylinder heads benefits from optimised combustion chambers and the longer opening times of the intake camshafts. A modified oil pump ensures a reliable supply to all lubrication points, even under the highest loads. An engine oil cooler is integrated into the AMG front apron, and an additional cooler is located in the wheel arch.

Particularly efficient intercooler

The AMG V12 biturbo engine is intercooled by a large low-temperature cooler located in the front end. The system operates on the particularly efficient principle of an air-water heat exchanger, and effectively cools the intake air compressed by the turbocharger before it enters the combustion chambers. Under full load, the larger surface of the low-temperature cooler achieves a 25 percent lower intake air temperature and ensures a high output and torque yield in all ambient temperatures and operating conditions. The compressor, turbine housing and turbine wheel of both turbochargers are larger in size, while the maximum charge pressure is 1.5 bar.

The electronically controlled, AMG-specific fuel injection system operates at a variable system pressure of 3.6 to 5.0 bar. The fuel pressure is variably and instantly adjusted depending on the performance requirement and ambient temperature. The engine electronics execute commands from the accelerator pedal within milliseconds, leading to outstanding responsiveness under all load conditions.

AMG sports exhaust system for typical AMG twelve-cylinder vocals

The typical AMG twelve-cylinder sound of the SL 65 AMG is provided by the AMG sports exhaust system with two oval, chromed twin tailpipes in a V12 design. The tri-metallic coating used in the catalytic converters results in a faster response from a cold start, more efficient emission control as well as superior long-term durability. Naturally the SL 65 AMG also fulfils all standard exhaust emissions limits such as EU 4. The engine is also able to take specific requirements of the U.S. market, such as LEV-II, On-Board Diagnosis II and oxygen sensor diagnosis, in its stride.

The exceptional status of the AMG V12 engine was also recognised in the “International Engine of the Year Awards 2004”: in the “Best Performance Engine” category, the jury voted the 450 kW/612 hp AMG engine the winner ahead of 70 competing units from Europe, the USA and Japan. In the AMG engine workshops, each engine is traditionally hand-assembled according to the “One man, one engine” philosophy. This means that a single technician assembles the complete V12 engine by hand according to the most stringent quality standards – as witness his signature on the engine’s AMG badge.

AMG SPEEDSHIFT and asymmetrical locking differential

Power transfer in the SL 65 AMG is by the AMG SPEEDSHIFT five-speed automatic transmission with three drive modes. Pressing the “S/C/M” button in the centre console enables the driver to choose between the different transmission characteristics provided by “Sport”, “Comfort” and “Manual” modes. At any time the gears can also be shifted using the silver-coloured aluminium AMG shift paddles on the AMG ergonomic sports steering wheel.

To cope with the engine’s enormous output and torque potential, the drive train features particularly robust and efficient components: not only a number of transmission components such as the clutch discs and the shift/torque converter lockup logic, but also the drive shafts, wheel location, wheel bearings and rear axle spring links are designed for extremely high strength.

The reinforced rear axle differential housing accommodates a mechanical, asymmetrical multiple-disc locking differential with a locking factor of 30 percent under load; especially with a very sporty style of driving, this provides optimal rear wheel traction. In conjunction with the appropriately configured acceleration skid control, which has a feature known as traction logic, this means that the engine power is transferred to the road with best possible efficiency.

AMG sports suspension based on Active Body Control

As in the SL 63 AMG, the AMG sports suspension based on Active Body Control has been further refined for the SL 65 AMG. The new spring and damper tuning, plus completely modified elastokinematics, ensure even more responsive handling dynamics. Greater agility and shorter stopping distances are also guaranteed by the front axle bearings, the spring links and the torque strut along with individual strut bearings at the rear. In partnership with the optimised speed-sensitive power steering the SL 65 AMG now feels even more direct and livelier – enabling the driver to fully utilise the linear steering and oversteer/understeer characteristics typical of a sports car, especially on winding roads or a private race. The AMG sports suspension based on Active Body Control also allows individual settings to be selected at the touch of a button: either a sporty, firm response with reduced roll angles, or a more comfort-focused setting for excellent comfort on long journeys.

AMG high-performance braking system and new 19-inch forged wheels

In keeping with its incomparable dynamic potential, the SL 65 AMG is equipped with a large AMG high-performance braking system with particularly effective composite technology at both front and rear. The front wheels are equipped with 360 x 36-millimetre brake discs, while deceleration at the rear comes courtesy of 330 x 26-millimetre brake discs; all discs are internally ventilated and perforated. The SL 65 AMG is shod with size 255/35 R 19 (front) and 285/30 R 19 (rear) tyres mounted on new, 19-inch AMG forged light-alloy wheels with a titanium grey finish and polished surface.

New AMG bodystyling with V12-specific features

Viewed from the front, this flagship AMG V12 model is distinguishable from the SL 63 AMG by a matt-silver painted lower transverse fin in the front apron, and on the sides by the “V12 Biturbo” lettering on the matt-silver painted trim panels

of the front wings. At the rear the AMG sports exhaust system with two chrome-plated twin tailpipes in a V12 design identifies the top model. Standard features of the SL 65 AMG also include the new AMG bodystyling with a front apron, side skirts and a rear apron, as well as the AMG-specific bonnet and AMG spoiler lip.

Nappa leather upholstery in the new AMG V12 diamond-pattern design

The exclusive nappa leather upholstery on the AMG sports seats and door centre panels with its new AMG V12 diamond-pattern design catches the eye in the interior of the SL 65 AMG. "V12 BITURBO" lettering on the rev counter adorns the new AMG instrument cluster with its 360 km/h speedometer scale. As with the SL 63 AMG, the new AMG ergonomic sports steering wheel with its three-spoke design and aluminium AMG shift paddles is also included. The extensive standard specification also includes genuine carbon-fibre trim and the multi-way electrically adjustable AMG sports seats with multicontour and memory functions, seat heating, AMG badge.

Other standard features of the SL 65 AMG include (selection):

- AMG door sill panels in brushed stainless steel
- COMAND APS multimedia system
- Remote boot lid locking
- KEYLESS-GO
- Metallic paintwork
- PARKTRONIC
- Tyre pressure control system
- Seat climate system (seat heating and ventilation)
- Harman Kardon® surround sound system
- Draught-stop

Optional extras from the AMG *PERFORMANCE STUDIO*

Exclusive optional extras from the AMG *PERFORMANCE STUDIO* are available for the SL 65 AMG. These include:

- AMG exterior carbon-fibre package with side air outlets in front apron, exterior mirror housing, spoiler lip and genuine carbon-fibre diffuser insert in rear apron
- AMG performance steering wheel, flattened underside and smaller diameter
- AMG door sill panels, illuminated in white light

Extensive designo range also for the SL 65 AMG

SL 65 AMG customers in particular like to opt for the exclusive designo range to give their V12 roadster an unmistakably personal touch. There is a choice of twelve different designo metallic paint finishes in particularly scratch-resistant nano-technology, which combine perfectly with twelve single-tone designo leather interiors. If Exclusive designo leather is specified, not only the seats and centre door panels and the lower door sections, but also the lower section of the dashboard, the instrument cluster shroud, the armrest cover, the parcel shelf and the centre console are lined in the chosen designo leather colour. The liner of the vario-roof and the A and C-pillars are lined in anthracite, alpaca grey or pebble beige Alcantara. designo wood trim is also available in natural matt maple grain, as well as the unique designo stone trim of genuine granite: Labrador blue pearl and Star Galaxy.

Wide range of optional extras

As with the SL 63 AMG, a wide range of optional extras is available for the SL 65 AMG which make travel in the V12 Roadster even more pleasurable and safe. For example the AIRSCARF neck-level heating system, the Intelligent Light System or the panoramic glass Vario-roof.

Other optional extras for the SL 65 AMG (selection):

- DISTRONIC proximity control
- Media Interface for connecting mobile audio units
- TV tuner for analogue/digital TV reception

Mercedes-Benz SL 280

Engine

No. of cylinders/arrangement		6/V, 4 valves per cylinder
Displacement	cc	2996
Bore x stroke	mm	88.0 x 82.1
Rated output	kW/hp	170/231 at 6000 rpm
Rated torque	Nm	300 at 2500-5000 rpm
Compression ratio		11.3 : 1
Mixture formation		Microprocessor-controlled petrol injection with hot-film mass airflow sensor (HFM)

Power transfer

Transmission		Seven-speed automatic transmission
Ratios	Final drive	3.07
	1st gear	4.38
	2nd gear	2.86
	3rd gear	1.92
	4th gear	1.37
	5th gear	1.00
	6th gear	0.82
	7th gear	0.73
	Reverse	-3.42/-2.23

Chassis

Front axle		Four-link suspension, anti-dive, gas-filled shock absorbers, coil springs, stabiliser
Rear axle		Multi-link independent suspension, anti-squat and anti-lift, gas-filled shock absorbers, coil springs, stabiliser
Brakes		Internally ventilated and perforated disc brakes at front, solid at the rear, foot-operated parking brake, ABS, Brake Assist, ESP®
Steering		Speed-sensitive rack-and-pinion power steering, steering damper
Wheels		8.5 J x 17
Tyres		255/45 R 17

Dimensions and weights

Wheelbase	mm	2560
Track width front/rear	mm	1559/1547
Overall length	mm	4562
Overall width	mm	1820
Overall height	mm	1317
Turning circle	m	11.04
Boot capacity*	l	339 (with vario-roof open: 235)
EC kerb weight	kg	1815
Payload (based on EC kerb weight)	kg	295
Perm. gross vehicle weight	kg	2110
Tank capacity/reserve	l	80/10

Performance and fuel consumption

Acceleration 0-100 km/h	s	7.8
Top speed	km/h	250
Fuel consumption, NEDC comb. l/100 km		9.4

* Acc. to VDA measuring method

Engine

No. of cylinders/arrangement		6/V, 4 valves per cylinder
Displacement	cc	3498
Bore x stroke	mm	92.9 x 86
Rated output	kW/hp	232/316 at 6500 rpm
Rated torque	Nm	360 at 4900 rpm
Compression ratio		11.7 : 1
Mixture formation		Microprocessor-controlled petrol injection with hot-film mass airflow sensor (HFM)

Power transfer

Transmission		Seven-speed automatic transmission
Ratios	Final drive	3.27
	1st gear	4.38
	2nd gear	2.86
	3rd gear	1.92
	4th gear	1.37
	5th gear	1.00
	6th gear	0.82
	7th gear	0.73
	Reverse	-3.42/-2.23

Chassis

Front axle		Four-link suspension, anti-dive, gas-filled shock absorbers, coil springs, stabiliser
Rear axle		Multi-link independent suspension, anti-squat and anti-lift, gas-filled shock absorbers, coil springs, stabiliser
Brakes		Internally ventilated disc brakes at front and rear, perforated at front, foot-operated parking brake, ABS, Brake Assist, ESP [®]
Steering		Speed-sensitive rack-and-pinion power steering, steering damper
Wheels		8.5 J x 17
Tyres		255/45 R 17

Dimensions and weights

Wheelbase	mm	2560
Track width front/rear	mm	1559/1547
Overall length	mm	4562
Overall width	mm	1820
Overall height	mm	1317
Turning circle	m	11.04
Boot capacity*	l	339 (with vario-roof open: 235)
EC kerb weight	kg	1825
Payload (based on EC kerb weight)	kg	295
Perm. gross vehicle weight	kg	2120
Tank capacity/reserve	l	80/10

Performance and fuel consumption

Acceleration 0-100 km/h	s	6.2
Top speed**	km/h	250
Fuel consumption, NEDC comb.	l/100 km	9.9

* Acc. to VDA measuring method; ** Electronically limited

Mercedes-Benz SL 500

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Engine

No. of cylinders/arrangement		8/V, 4 valves per cylinder
Displacement	cc	5461
Bore x stroke	mm	98.0 x 90.5
Rated output	kW/hp	285/388 at 6000 rpm
Rated torque	Nm	530 at 2800-4800 rpm
Compression ratio		10.7 : 1
Mixture formation		Microprocessor-controlled petrol injection with hot-film mass airflow sensor (HFM)

Power transfer

Transmission		Seven-speed automatic transmission
Ratios	Final drive	2.65
	1st gear	4.38
	2nd gear	2.86
	3rd gear	1.92
	4th gear	1.37
	5th gear	1.00
	6th gear	0.82
	7th gear	0.73
	Reverse	-3.42/-2.23

Chassis

Front axle		Four-link suspension, Active Body Control
Rear axle		Multi-link independent suspension, Active Body Control
Brakes		Internally ventilated disc brakes at front and rear, perforated at front, foot-operated parking brake, ABS, Brake Assist, ESP [®]
Steering		Speed-sensitive rack-and-pinion power steering, steering damper
Wheels		8.5 J x 18
Tyres		255/40 R 18

Dimensions and weights

Wheelbase	mm	2560
Track width front/rear	mm	1559/1547
Overall length	mm	4562
Overall width	mm	1820
Overall height	mm	1298
Turning circle	m	11.04
Boot capacity*	l	339 (with vario-roof open: 235)
EC kerb weight	kg	1910
Payload (based on EC kerb weight)	kg	295
Perm. gross vehicle weight	kg	2205
Tank capacity/reserve	l	80/10

Performance and fuel consumption

Acceleration 0-100 km/h	s	5.4
Top speed**	km/h	250
Fuel consumption, NEDC comb.	l/100 km	11.9

*acc. to VDA measuring method; **electronically limited

Engine

No. of cylinders/arrangement		12/V, 3 valves per cylinder
Displacement	cc	5513
Bore x stroke	mm	82 x 87
Rated output	kW/hp	380/517 at 5000 rpm
Rated torque	Nm	830 at 1900-3500 rpm
Compression ratio		9.0 : 1
Mixture formation		Microprocessor-controlled petrol injection, twin turbocharger

Power transfer

Transmission		Five-speed automatic transmission
Ratios	Final drive	2.65
	1st gear	3.60
	2nd gear	2.19
	3rd gear	1.41
	4th gear	1.00
	5th gear	0.83
	Reverse	-3.17/-1.93

Chassis

Front axle		Four-link suspension, Active Body Control
Rear axle		Multi-link independent suspension, Active Body Control
Brakes		Internally ventilated disc brakes at front and rear, perforated at front, foot-operated parking brake, ABS, Brake Assist, ESP [®]
Steering		Speed-sensitive rack-and-pinion power steering, steering damper
Wheels		Front: 8.5 J x 18; rear: 9.5 J x 18
Tyres		Front: 255/40 R 18; rear: 285/35 R 18

Dimensions and weights

Wheelbase	mm	2560
Track width front/rear	mm	1559/1537
Overall length	mm	4562
Overall width	mm	1820
Overall height	mm	1298
Turning circle	m	11.04
Boot capacity*	l	339 (with vario-roof open: 235)
EC kerb weight	kg	2045
Payload (based on EC kerb weight)	kg	275
Perm. gross vehicle weight	kg	2320
Tank capacity/reserve	l	80/10

Performance and fuel consumption

Acceleration 0-100 km/h	s	4.5
Top speed**	km/h	250
Fuel consumption, NEDC comb.	l/100 km	13.9

*Acc. to VDA measuring method; **Electronically limited

Engine

No. of cylinders/arrangement		8/V, 4 valves per cylinder
Displacement	cc	6208
Bore x stroke	mm	102.2 x 94.6
Rated output	kW/hp	386/525 at 6800 rpm
Rated torque	Nm	630 at 5200 rpm
Compression ratio		11.3 : 1
Mixture formation		Microprocessor controlled petrol injection, HFM

Power transfer

Drive		Standard drive
Transmission		AMG SPEEDSHIFT MCT 7-speed sports transmission
Ratios	Final drive	3.06
	1st gear	4.38
	2nd gear	2.86
	3rd gear	1.92
	4th gear	1.37
	5th gear	1.00
	6th gear	0.82
	7th gear	0.73
	Reverse	-3.42

Running gear

Front axle		Four-link suspension, Active Body Control
Rear axle		Multi-link independent suspension, Active Body Control
Braking system		Composite brake discs internally ventilated and perforated at the front, brake discs internally ventilated and perforated at the rear, foot-operated parking brake, ABS, Brake Assist, ESP®
Steering		Speed-sensitive rack-and-pinion power steering, steering damper
Wheels		front: 8.5 J x 19; rear: 9.5 J x 19
Tyres		front: 255/35 R 19; rear: 285/30 R 19

Dimensions and weights

Wheelbase	mm	2560
Track front/rear	mm	1569/1554
Overall - Length	mm	4605
- Width	mm	1816
- Height	mm	1298
Turning circle	m	11.04
Boot capacity*	l	339 (with Vario-roof open: 235)
Kerb weight acc. to EC**	kg	1970
Payload (acc. to EC)	kg	255
Gross vehicle weight	kg	2225
Tank capacity/reserve	l	80/14.0

Performance and fuel consumption

Acceleration 0-100 km/h	s	4.6
Max. speed	km/h	250***
Fuel consumption NEDC comb.	l/100 km	13.9

* acc. to VDA measuring method; **incl. 75 kg for driver and luggage; *** electronically limited

Engine

No. of cylinders/arrangement		12/V, 3 valves per cylinder
Displacement	cc	5980
Bore x stroke	mm	82.6 x 93.0
Rated output	kW/hp	450/612 at 4800 – 5100 rpm
Rated torque	Nm	1000 at 2000 – 4000 rpm
Compression ratio		9.0: 1
Mixture formation		Microprocessor-controlled petrol injection, twin turbocharger

Power transfer

Drive		Standard drive
Transmission		AMG SPEEDSHIFT 5-speed automatic
Ratios	Final drive	2.65
	1st gear	3.60
	2nd gear	2.19
	3rd gear	1.41
	4th gear	1.00
	5th gear	0.83
	Reverse	-3.16/-1.93

Running gear

Front axle		Four-link suspension, Active Body Control
Rear axle		Multi-link independent suspension, Active Body Control
Braking system		Composite brake discs internally ventilated and perforated at front and rear, foot-operated parking brake, ABS, Brake Assist, ESP [®]
Steering		Speed-sensitive rack-and-pinion power steering, steering damper
Wheels		front: 8.5 J x 19; rear: 9.5 J x 19
Tyres		front: 255/35 R 19; rear: 285/30 R 19

Dimensions and weights

Wheelbase	mm	2560
Track front/rear	mm	1569/1554
Overall - length	mm	4605
- width	mm	1816
- height	mm	1298
Turning circle	m	11.04
Boot capacity*	l	339 (with Vario-roof open: 235)
Kerb weight acc. to EC**	kg	2120
Payload (acc. to EC)	kg	265
Gross vehicle weight	kg	2385
Tank capacity/reserve	l	80/14.0

Performance and fuel consumption

Acceleration 0-100 km/h	s	4.2
Max. speed	km/h	250***
Fuel consumption NEDC comb. l/100 km		15.1

* Acc. to VDA measuring method; **Incl. 75 kg for driver and luggage; *** Electronically limited