

# Mercedes-Benz at the 78th International Motor Show in Geneva

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

## New products covering eight model series: Mercedes-Benz cuts fuel consumption and exhaust emissions by up to 12 per cent

**Stuttgart – Mercedes-Benz is continuing its commitment to further reductions in fuel consumption and exhaust emissions with new products in eight model series which will take centre stage at this year's Geneva Motor Show. The Vision GLK BLUETEC HYBRID lends further substance to the Stuttgart-based automotive manufacturer's claim of developing the world's most efficient and cleanest-running passenger car engines. Equipped with a state-of-the-art diesel-hybrid system, the study version of the forthcoming Mercedes off-roader excels with NEDC fuel consumption figures of a mere 5.9 litres per 100 kilometres, and complies with even the strictest emissions regulations courtesy of the highly efficient BLUETEC treatment process. The new BlueEFFICIENCY C-Class saloons as well as the coupé and roadster models likewise distinguish themselves by burning as much as 12 per cent less fuel than their predecessors, whilst still promising supreme safety, comfort and refinement.**

The Vision GLK BLUETEC HYBRID gives a further foretaste of the new off-roader from Mercedes-Benz, whilst providing a fresh demonstration of the ingenious BLUETEC emission control technology's remarkable efficiency. The four-cylinder diesel engine fitted in the study combines with a hybrid module to deliver a total output of 165 kW/224 hp and 560 Newton metres of torque. The NEDC fuel consumption of the Vision GLK BLUETEC HYBRID makes even more impressive reading: a mere 5.9 litres for every 100 kilometres. This enables the Mercedes study to achieve a lower CO<sub>2</sub> emission figure than any other model in the SUV market segment in the world: just 157 grams per kilometre. As a result of the highly efficient BLUETEC emission control with AdBlue injection, the GLK BLUETEC HYBRID is able to comply with the world's toughest exhaust emissions standards, such as BIN5 in the US and EURO 6.

In the hybrid drive train of the Mercedes study, a completely new four-cylinder CDI diesel unit with a displacement of 2.2 litres acts as the internal combustion engine. The technical highlights of this extremely compact and refined CDI unit with a geared camshaft drive mounted on the flywheel side include latest-generation common-rail direct injection with an injection pressure of 2000 bar and innovative piezoelectric injectors, as well as a two-stage turbocharger system. The compact hybrid module – a disc-shaped electric motor between the CDI engine and the automatic transmission – improves both the environmental compatibility and the effectiveness of the drive system.

The electric motor acts as both a generator and starter, and offer a two-pronged advantage: firstly it contributes decisively to fuel economy, and secondly it significantly enhances driving pleasure by virtue of the boost effect. The electric motor backs up the internal combustion engine during the fuel-intensive acceleration phase by contributing its maximum torque of 160 Newton metres. As a result the occupants experience an effortless rush of power right from the start.

In addition the system features a comfortable start-stop function which switches the engine off in certain circumstances – for example when the car is stopped at traffic lights. When it comes to braking, the procedures are reversed: the electric motor now acts as a generator, feeding the electrical energy obtained from the recuperation process into an efficient yet compact lithium-ion battery. This energy can be retrieved when needed – for the next "boost" phase, for example. All these processes take place fully automatically, thanks to intelligent drive management.

With the VISION GLK BLUETEC HYBRID, a distinctive character is entering the SUV stage whose special appeal lies in a combination of the angular original design of the legendary G-Class and the typical design features of today's Mercedes-Benz passenger cars. Crisp lines and large taut body surfaces come together with the bodyshell characteristics of practical off-roaders, such as short overhangs, an upright front end, slim A-pillars, a steep windscreen and tight roof contours. An excellent view of the vehicle body and good all-round visibility go together with the raised seating position to enhance day-to-day suitability and ensure relaxed driving.

The Vision GLK BLUETEC HYBRID demonstrates how outstanding performance could be paired with highly economical fuel consumption in the future – a combination that need not be confined to the forthcoming GLK-Class. Page 4

### **BlueEFFICIENCY C-Class models that consume twelve per cent less fuel**

Mercedes-Benz has concocted a BlueEFFICIENCY package for the four-cylinder C 180 KOMPRESSOR and C 200 CDI models which lowers fuel consumption in the two saloons by as much as twelve per cent, while retaining the high levels of comfort and safety that Mercedes is renowned for. Instead of the previous 6.1 litres of diesel, the BlueEFFICIENCY version of the 100-kW/136-hp C 200 CDI now makes do with just 5.1 litres for every 100 kilometres. This equates to 135 grams of carbon dioxide per kilometre. In the case of the C 180 KOMPRESSOR Mercedes-Benz has reduced the engine's displacement from 1796 to 1597 cubic centimetres, but output (115 kW/156 hp) and torque (230 Newton metres) remain unchanged. It returns fuel consumption figures of 6.5 litres per 100 kilometres, a whole 0.9 litres or twelve per cent below the figure for the standard production model.

For the new BlueEFFICIENCY models, Mercedes engineers have harnessed potentials from all fields of development to reduce weight, aerodynamic drag and rolling resistance yet further, and to organise the onboard energy management of these saloons even more efficiently. The extensive BlueEFFICIENCY package includes a newly developed lightweight front windscreen amongst its many features. In addition to lightweight construction measures, Mercedes-Benz also devoted particular attention to reducing rolling resistance and aerodynamic drag.

The specialists at Mercedes have carefully honed the excellent aerodynamics of the C-Class with a series of intelligent details, resulting in an exemplary Cd figure of 0.25 in the BlueEFFICIENCY models. This represents an improvement of seven per cent on the value for the standard production models. Intelligent control of ancillary units and the reduction of friction losses also makes an important

contribution to reducing fuel consumption. In the BlueEFFICIENCY models of the C-Class, the power steering system is controlled on a needs-driven and therefore energy-saving basis. The engine must therefore generate less energy for driving the servo pump. Page 5

A newly developed gearshift display in the cockpit informs the driver when he should change gear to save fuel. In addition to gearshift recommendations, the instrument cluster features a newly developed display showing the present fuel consumption.

### **C 350 CGI BlueEFFICIENCY with direct petrol injection**

Mercedes-Benz Also is also be exhibiting the new C 350 BlueEFFICIENCY with spray-guided direct injection at the Geneva Motor Show. This technology has previously been exclusive to just the CLS-Class and the E-Class, but is due to become available for the C-Class too from late 2008. Despite generating a higher power output and even greater torque, the new C 350 CGI BlueEFFICIENCY consumes around ten per cent less fuel than the C 350 saloon with the current V6 engine. This innovative new model is therefore set to offer a hitherto unrivalled combination of power delivery, agility, safety, economy and environmental compatibility in this vehicle class.

The CGI engine summons up an output of 215 kW/292 hp and 365 Newton metres of peak torque at 3000 rpm, 15 kW/20 hp and 15 Newton metres more respectively than the current V6 unit with port injection. Thanks to the state-of-the-art engine technology, fuel consumption of the C 350 CGI BlueEFFICIENCY has been cut to approx. 8.7 litres per 100 kilometres (provisional NEDC figure), one litre below the figure for the current C 350. As such, the new six-cylinder engine makes a major contribution to reducing carbon dioxide emissions. These significantly improved output and fuel consumption figures are achieved whilst still using cost-efficient premium grade petrol (RON 95).

Mercedes-Benz became the first car maker to put spray-guided direct petrol injection into series production in 2006. This technology is markedly superior to the direct injection system with wall-guided combustion used by other car makers, as the Mercedes technology achieves far better fuel utilisation due to its higher thermodynamic efficiency, meaning both reduced fuel consumption and lower exhaust emissions.

### **The new-generation SL-Class: sportier than ever before**

The new Mercedes dream machines celebrating their public premiere in Geneva are spearheaded by the SL-Class. Mercedes-Benz has refined, improved and advanced the roadster further to a level of detail and extent that goes well beyond a mere model facelift. The result is a car that combines sportiness, safety and comfort into an unprecedented synthesis in this vehicle class, offering Mercedes motoring refinement at sports car level.

The new, decidedly sporty and assured exterior design reflects the handling characteristics of this Mercedes roadster which, thanks to a new direct-steer system, now boasts yet greater agility while offering even more safety and comfort too. Two new six-cylinder engines will round off the SL range from spring 2008: the SL 280 develops 170 kW/ 231 hp and gets the SL sports car realm off to a highly attractive start. The SL 350 is powered by a newly developed and particularly free-revving sports engine. Output has increased by 16 per cent to 232 kW/316 hp compared to the previous 3.5-litre engine, while maximum torque has improved by 10 Nm to 360 Newton metres. This powerpack accelerates the new SL 350 from standstill to 100 km/h in just 6.2 seconds, making it 0.4 seconds faster than the outgoing SL 350. In this sports car, however, a higher output does not bring higher fuel consumption with it: at 9.9 litres per 100 kilometres, the SL 350 is 0.4 litres more economical than the preceding 200-kW/272-hp model on the NEDC driving cycle.

The flagship models in the SL range continue to be the SL 500 with a V8 engine and the twelve-cylinder SL 600. Their engines consume up to 0.4 litres less fuel per 100 kilometres than before.

The SL consolidates its substantial lead in the field of safety with bi-xenon headlamps and the optional Intelligent Light System, whose lighting functions are purpose-designed for typical driving situations. One new feature onboard is the AIRSCARF neck-level heating system invented and patented by Mercedes-Benz. This optionally available system enhances comfort when driving with the roof down, extending the roadster season until well into the colder part of the year.

The front-end design of the SL-Class shows that Mercedes-Benz has reinforced the sporty attributes of the roadster even further. The centrepiece is a wide and therefore very imposing radiator grille, whose arrow shape symbolises virtues such as its go-getting performance potential. A horizontal fin adds visual width to the radiator grille and thereby emphasises the muscular appearance of the SL's front end, which consequently seems surprisingly new yet, at the same time, reassuringly familiar.

### **CLS: new six-cylinder engine and fine-tuning down to the last detail**

The unique, four-door CLS Coupé – which pioneered a new automotive segment – has also been made more attractive than ever by careful fine-tuning. The front aspect is dominated by a modified radiator grille, which now has two rather than the previous four louvres. The exterior mirrors also have a new shape, with integrated, arrow-shaped LED indicator repeaters and a mirror surface which is over 30 per cent larger. The tail lights also now feature LED technology, with the brake lamps, tail lamps and indicator lamps all using the extra-fast-reacting light-emitting diodes.

Great attention to detail was paid while updating the interior too: modifications include a restyled leather steering wheel in a three-spoke design with multifunction buttons, as well as a new-look instrument cluster. Here, white dials now contrast distinctly with the chased surface of the backplate. New chestnut wood inserts replace the previous trim.

Like the SL, SLK and CLC, the CLS also benefits from new-generation infotainment systems. These high-performance units combine ease of operation and intuitive menus with perfect in-vehicle entertainment. Features include speed-sensitive volume control, an MP3-compatible CD and DVD player, as well as a Bluetooth interface which can establish a wireless connection between a mobile phone and the vehicle's hands-free system. Audio 20, Audio 20 CD with CD changer, Audio 50 and Audio 50 APS with DVD changer and the LINGUATRONIC voice-control system now feature a 5-inch colour monitor. The COMAND APS comes with a high-resolution 6.5-inch colour display, LINGUATRONIC for audio, navigation and telephone calls, a music register for storing audio files, plus an SD memory card slot.

As the new entry-level model, Mercedes-Benz offers the CLS 280 with an up-to-date 2996 cc V6 engine developing a maximum output of 170 kW/231 hp and a peak torque of 300 Newton metres. Combined fuel consumption on the NEDC driving cycle is 9.8 - 10.0 litres per 100 kilometres. The second V6 petrol model in the range is the CLS 350 CGI. Its advanced six-cylinder engine with piezo-electric direct injection and a spray-guided combustion system musters 215 kW/292 hp and has an impressively low NEDC fuel consumption of 9.1 to 9.3 litres per 100 kilometres.

Under the bonnet of the CLS 500 is a V8 drive unit with a displacement of 5.5 litres and a maximum output of 285 kW/388 hp. The CLS 320 CDI with its 165-kW/224-hp V6 diesel engine excels above all with its high torque of 540 Newton metres accompanied by a low diesel fuel consumption of 7.6 to 8.1 litres per 100 kilometres. All CLS models are equipped with the 7G-TRONIC seven-speed automatic transmission as standard.

#### **CLC: new Sports Coupé with CDI engines in the five-litre consumption class**

Mercedes-Benz is unveiling a stand-alone model series at the Geneva Motor Show in the guise of the new CLC, the compelling entry-level model in the Stuttgart-based brand's coupé family. The compact body dimensions and powerful proportions underline the sporty appearance of the new CLC. With its striking

coupé radiator grille, which has a large Mercedes star at its centre, as well as the new projection-beam headlamps, the Sports Coupé stays true to the current Mercedes design idiom. The large boot lid conceals a variable luggage compartment with a capacity of up to 1100 litres. The tail lights, the long row of LEDs forming the third brake light and the rear bumper subdivide the rear end and accentuate its width. Page 9

The interior of the new Mercedes-Benz CLC is akin to a modern bespoke suit, having a precise and comfortable fit. Sports seats with further improved lateral support, a three-spoke multifunction steering wheel, automatic climate control and brushed aluminium trim all come as standard.

The new CLC is available with a choice of four four-cylinder and two six-cylinder engines developing outputs from 90 kW/122 hp to 200 kW/272 hp. Thanks to its up-to-date turbodiesel engines, the Sports Coupé ranks in the five-litre fuel consumption category: the CLC 200 CDI limits itself to 5.8 to 6.1 litres per 100 kilometres (NEDC), i.e. up to 10.8 per cent less than the preceding model. The CDI models are capable of covering over 1000 kilometres with just one tank of fuel. The 135-kW/184-hp power unit in the CLC 200 KOMPRESSOR now has 15 kW/20 hp more output, and consumes only 7.8 to 8.2 litres per 100 kilometres on the NEDC driving cycle – up to 0.7 litres less than before.

#### **CL: permanent all-wheel drive with no fuel penalty**

The Mercedes Coupé family continues to be headed by the luxurious CL-Class, which offers the widest model range in this vehicle class with the CL 500, CL 600, CL 63 AMG and CL 65 AMG. In addition, the new CL 500 4MATIC with permanent all-wheel drive will be joining the line-up from summer 2008. This two-door model is equipped with a 285 kW/388 hp V8 engine, and in addition to 4MATIC it features innovations such as the Intelligent Light System and the preventive occupant protection system PRE-SAFE® as standard.

Mercedes-Benz has further refined all aspects of its all-wheel drive system, and uses the latest-generation system in the CL 500 4MATIC – the same one that has already proved so successful in the S-Class. 4MATIC is permanently active and therefore requires no response time to come to the driver's aid in unfavourable weather and driving conditions. As a result, critical situations can be mastered with greater ease.

With a weight of just 70 kilograms, the newly-developed 4MATIC is the lightest drive system of its kind. The combined NEDC fuel consumption of the CL 500 4MATIC is 12.1 litres per 100 kilometres, which puts it on a par with the rear-wheel drive CL 500 – a further bonus of the new, highly efficient Mercedes all-wheel drive system. The CL 500 4MATIC requires just 5.4 seconds to accelerate from zero to 100 km/h, and reaches an electronically limited top speed of 250 km/h.

### **SLK: even more driving pleasure with considerably lower fuel consumption**

Following a comprehensive model facelift, the Mercedes-Benz SLK is now yet more dynamic and provides an even more emotion-charged driving experience. The most important visual changes include a redesigned front and rear end, as well as a carefully modified interior with a new instrument cluster and three-spoke sports steering wheel. The V6 sports engine from the SL-Class is also deployed in the new SLK 350, where it develops an output of 224 kW/305 hp at 6500 rpm – 24 kW/33 hp more than the six-cylinder unit in the previous SLK 350. The peak torque has also been boosted, by 10 Nm, and now stands at 360 Nm when the engine is running at 4900 rpm. Despite this higher output and excellent performance figures, the fuel consumption of the SLK 350 has been significantly reduced. Its combined fuel consumption with the six-speed manual transmission is now only 9.5 litres per 100 kilometres, which represents a remarkable reduction of 1.1 litres for every 100 kilometres.

In addition to the SLK 350, the four-cylinder model SLK 200 KOMPRESSOR and the six-cylinder SLK 280 continue to form part of this compact Mercedes roadster range: the output of the supercharged four-cylinder engine has increased by

15 kW/21 hp to 135 kW/184 hp, while fuel consumption has been lowered by one litre to 7.7 litres per 100 kilometres. The NEDC fuel consumption of the SLK 280 (170 kW/231 hp) has been reduced by 0.4 litres to 9.3 litres per 100 kilometres. The SLK 55 AMG continues to be powered by the familiar 5.5-litre V8 engine developing 265 kW/360 hp. Page 11

The designers have honed the looks of the cult two-seater for added sportiness. Eye-catching features include the new-look front bumper with a modified air-dam arrangement and a more pronounced arrow shape. The tail end has also been remodelled by the design team, with the diffuser-look styling at the bottom giving the roadster an even more powerful appearance from the rear too. Trapezoidal exhaust tailpipes and dark-tinted tail lights do even more to accentuate this impression. The exterior mirrors now have LED indicator repeaters with a pronounced arrow shape, and also have a larger mirror area.

### **The name says it all: the Viano X-CLUSIVE special model**

The airy, spacious feel of an MPV coupled with the exclusive appointments of a luxury saloon and the technical and visual attributes of a sports car – the new Viano X-CLUSIVE conjures up this exceptional combination. The interior pampers passengers with an extremely high standard of comfort. Features include soft carpeting, six leather-upholstered individual seats, which can be arranged to face each other in the rear, a multifunction steering wheel, plus leather trim for the shift lever and parts of the door panelling.

The new special model is powered exclusively by high-performance six-cylinder engines developing 150 kW/204 hp or 190 kW/258 hp. Power is transferred to the wheels via a five-speed automatic transmission.

Both powerplants are partnered by the latest emission control systems, allowing them to meet EU4 standards. And making economical use of fuel benefits not only the owner's wallet but, above all, the environment too. Page 12

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## Compact off-roader study with ultra-clean drive technology

The grand rehearsal at the beginning of this year already made heads turn, when the striking Vision GLK entered the SUV stage and was celebrated as a compact character actor marking a new design approach in this vehicle class. At the 2008 Geneva Motor Show, Mercedes-Benz is going a step further and adding the Vision GLK BLUETEC HYBRID to the line-up. This study illustrates the possibilities of the "TrueBlueSolutions" strategy in the compact SUV segment, true to the guiding Mercedes-Benz theme of producing the world's most efficient and clean drive systems. The Vision GLK BLUETEC HYBRID achieved this goal by combining the new BLUETEC four-cylinder diesel engine generation with a hybrid module. This combination generates an overall output of 165 kW/224 hp, and a torque of 560 Nm. Superior performance can be taken as read in view of these figures. And yet the Vision GLK BLUETEC HYBRID returns a fuel consumption of only 5.9 l per 100 km.

With its TrueBlueSolutions strategy, Mercedes-Benz is preparing the way for the introduction of the world's most economical and clean vehicles. As in the case of the VISION GLK BLUETEC HYBRID, ultra-modern and efficient diesel engines with innovative BLUETEC emissions control, hybrid modules and intelligent energy management are among the centrepieces of this trailblazing generation of drive systems. The study for this compact characterful SUV, whose market launch is scheduled for autumn 2008, has a combined output of 165 kW/224 hp and generates a combined torque of 560 Newton metres, the world's highest in this class. This enables the VISION GLK BLUETEC HYBRID to accelerate from zero to 100 km/h in 7.3 seconds; its maximum speed is 215 km/h. Despite these performance figures, this multi-talented newcomer consumes an average of only 5.9 litres of diesel per 100 kilometres, and achieves the world's lowest CO<sub>2</sub> emissions in the SUV segment, with 157 grams per kilometre.

In conjunction with highly efficient BLUETEC emissions control and AdBlue injection, the GLK BLUETEC HYBRID meets the world's most stringent exhaust emission limits, such as the American BIN5 and the European EU6 standards.

"With the refinement, driving pleasure, outstanding economy and effective environmental friendliness that is typical of our brand, the VISION GLK BLUETEC HYBRID ideally represents our ideas on future model generations in the world of SUVs", says Dr Thomas Weber, Member of the Board of Management responsible for Corporate Research and Mercedes-Benz Cars Development.

#### **Mixed double: state-of-the-art BLUETEC engine and hybrid module**

In the hybrid drive train, a completely new four-cylinder CDI diesel unit with a displacement of 2.2 litres acts as the internal combustion engine. In terms of exhaust emissions technology, thanks to the latest BLUETEC technology with AdBlue injection, this diesel engine is already among the world's very cleanest power units. The technical highlights of this extremely compact and refined CDI unit with a geared camshaft drive mounted on the flywheel side include fourth-generation common-rail direct injection with an injection pressure of 2000 bar, innovative piezoelectric injectors and a two-stage turbocharger system. The compact hybrid module – a disc-shaped electric motor between the CDI engine and the automatic transmission – improves both the environmental compatibility and the effectiveness of the drive system. The electric motor acts as both a generator and starter, and performs convincingly in two important respects: firstly it contributes decisively to fuel economy, and secondly it significantly enhances driving pleasure by virtue of the so-called boost effect.

The electric motor backs up the internal combustion engine during the fuel-intensive acceleration phase by contributing its maximum torque of 160 Newton metres. As a result the occupants experience an effortless rush of power right from the start. In addition the system features a smooth start-stop function which switches the engine off in certain circumstances – for example when the car is stopped at traffic lights.

The driver only needs to operate the accelerator in order to set off again. As the engine starts within milliseconds, the VISION GLK moves off with no delay. This direct starting also helps to minimise emissions and fuel consumption.

When it comes to braking, the procedures are reversed: the electric motor acts as a generator, feeding the electrical energy obtained by what is known as the "recuperation" process into an efficient yet compact lithium-ion battery. This energy can be retrieved when needed – for the next "boost" phase, for example. All these processes take place fully automatically, thanks to intelligent drive management.

### **Striking body design counters stylistic uniformity**

With the VISION GLK BLUETEC HYBRID, a distinctive character is entering the SUV stage whose special appeal lies in a combination of the angular original design of the legendary G-Class and the typical design features of today's Mercedes-Benz passenger cars. Crisp lines and large taut body surfaces come together with the bodyshell characteristics of practical off-roaders, such as short overhangs, an upright front end, slim A-pillars, a steep windscreen and tight roof contours. For the first time, this body design enables typical off-roader advantages to be transferred to the more road-oriented, compact SUV class. An excellent view of the vehicle body and good all-round visibility go together with the raised seating position to enhance day-to-day suitability and ensure relaxed driving even in dense city traffic. The appealing design concept is reinforced by the special "alubeam blue" paint finish, whose incomparable depth further underlines the sporty aspects of the bodyshell design. Specially produced 20-inch light-alloy wheels and muscular wheel arches enhance the powerful aura of the Vision GLK BLUETEC HYBRID even further.

### **Interior: high-end atmosphere meets good ergonomics**

The comfortable, high-quality interior of the Vision GLK BLUETEC HYBRID excels with a modern interpretation of surface styling, an impressive quality of materials and precise finishing. The dominant feature is the dashboard, which visually extends into the door panels, lending additional width to the generously dimensioned interior. An elegant, central section in brushed aluminium trim covers

the entire width and divides the layout into three vertical levels. The upper section Page 16 of the dashboard is lined in black leather, encompassing the instrument cluster and the fixed COMAND APS central display. The lower area of the interior and the seats accentuate the sporty nature of the study with leather upholstery and linings in a light shade of aquamarine, which echoes the colour effects of the "alubeam blue" exterior paintwork. Dark-blue piped seams provide a visually effective contrast. The driver's armrest and the COMAND APS controller are located in ergonomically ideal positions.

The occupants are protected by a comprehensive safety concept based on an extremely rigid passenger cell and energy-absorbing deformation zones at the front and rear. In addition to airbags, sidebags and windowbags, the protective features include a driver kneebag and active head restraints.

### **VISION GLK appointments at luxury class level**

This compact concept car has technical features and appointments which are normally the preserve of higher vehicle classes. In addition to the anticipatory safety concept PRE-SAFE and the Intelligent Light System (ILS), these include the infotainment centre COMAND APS with HDD navigation, whose controls follow the tried-and-tested, intuitive operating logic familiar from the S-Class, as well as THERMOTRONIC 3-zone automatic climate control. The extremely stable bodysell raises the basic parameters by which comfort is defined to a level which is unprecedented in the compact SUV segment:

Both handling stability and vibration/noise comfort are thoroughly impressive under all conditions.

### **AGILITY CONTROL: safety plus dynamic handling and comfort**

The AGILITY CONTROL suspension of the on-road Vision GLK BLUETEC HYBRID substantially reconciles the conflicting aims of sporty and agile handling on the one hand and comfortable, smooth travel on the other. Thanks to "amplitude-dependent damping", the suspension delivers a soft response during normal

travel on moderately contoured roads or unmetalled surfaces. Comfort is maintained even when driving more briskly or during avoiding manoeuvres, as the dampers work harder in this situation to ensure maximum handling stability. At the same time the driver of the Vision GLK BLUETEC HYBRID is assisted by a speed-sensitive steering system. Parking and low-speed manoeuvring are made much easier because full servo assistance is made available. At higher speeds this servo assistance is reduced in the interests of improved handling stability.

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### **Latest addition to the premium SUV segment**

Mercedes-Benz has occupied the leading position in the off-road sector since the introduction of the legendary G-Class in 1979. With the first-generation ML-Class, which was launched in 1997, Mercedes-Benz defined the Sports Utility Vehicle in its modern interpretation. Together with the current model, which celebrated its premiere in 2005, sales of this model series are rapidly approaching the one million mark, making it one of the world's most successful premium SUVs. Since 2006 another SUV from Mercedes-Benz has occupied the pole position in the SUV world – the GL-Class, whose occupants enjoy first-class travel in all circumstances, whether on or off-road. The Vision GLK BLUETEC HYBRID now demonstrates how outstanding performance could be paired with minimal fuel consumption in the future. What is more, this combination need not be confined to the new GLK-Class, which will enter the market in autumn 2008.

## BlueEFFICIENCY in the C-Class Fuel consumption reduced by 12 per cent

- **Lightweight design measures reduce weight by up to 32 kilograms**
- **New tyres with lower rolling resistance**
- **Coefficient of drag lowered even further**
- **C 350 CGI featuring BlueEFFICIENCY with spray-guided direct injection**

From spring 2008, Mercedes-Benz will be adding three extra-economical BlueEFFICIENCY saloons to the C-Class range. A raft of intelligent measures and technologies has enabled the fuel consumption of the high-volume C 180 KOMPRESSOR and C 200 CDI models to be reduced by up to twelve per cent, while retaining the high levels of comfort and safety typical of a Mercedes. The BlueEFFICIENCY version of the 100 kW/136 hp C 200 CDI consumes only 5.1 litres per 100 kilometres, while the C 180 KOMPRESSOR BlueEFFICIENCY with 115 kW/156 hp covers 100 kilometres with 6.5 litres of premium petrol. This corresponds to 135 and 156 grams of carbon dioxide, respectively, per kilometre. The third BlueEFFICIENCY C-Class model on show in Geneva is the C 350 CGI with direct petrol injection. The six-cylinder unit burns around ten per cent less fuel than the saloon with the current V6 engine.

For the new BlueEFFICIENCY models, Mercedes engineers have harnessed potentials from all fields of development to reduce weight, aerodynamic drag and rolling resistance yet further, and to organise the onboard energy management of these saloons even more efficiently. Together, these measures add up to a fuel saving on the NEDC driving cycle of 0.9 litres per 100 kilometres for the C 180 KOMPRESSOR, and 0.6 litres for the C 200 CDI.

The specialists in Sindelfingen have made very detailed improvements to the comprehensive lightweight construction concept of the C-Class, and have managed to shave off between 19 and 32 kilograms of weight depending on the model. This achievement is in part due to a newly developed windscreen made of

laminated glass, which weighs around 1.2 kilograms less than before. This is made possible by a technology transfer from the Maybach luxury saloon: between the panes of glass lies a new, acoustically effective plastic membrane which efficiently absorbs wind noise. This has enabled Mercedes engineers to reduce the thickness of the windscreen, achieving a further weight reduction without compromising noise comfort in any way.

The noise-insulating lining of the firewall has also been weight-optimised with the help of special materials and the latest calculation methods. Using computer simulations, Mercedes-Benz recalculated the required firewall insulation and precisely redefined the material thickness of the sound-absorbing resinous foam in line with the noise input. This needs-driven redesign reduces the weight of the lining by around 20 per cent.

Forged lightweight wheels also have a positive effect on the weight. These tip the scales at around 1.8 kilograms less than conventional light-alloy wheels, saving a total of more than seven kilograms per vehicle. These new lightweight wheels (6 J x 16 ET 39), which have aerodynamic benefits too, are standard equipment for the new BlueEFFICIENCY variants of the C 180 KOMPRESSOR and C 200 CDI.

#### **Newly developed tyres: 17 per cent less rolling resistance**

In addition to lightweight construction measures, Mercedes-Benz also devoted particular attention to reducing rolling resistance and aerodynamic drag. In collaboration with Michelin, Mercedes engineers developed lightweight tyres with a particularly low rolling resistance. These are now receiving their series production premiere in the C-Class, and help to reduce fuel consumption.

Rolling resistance is primarily caused by tyre deformation as the tyre contacts the road surface. This has a braking effect on the car, since additional energy is required to overcome this deformation resistance. Therefore, the higher the rolling resistance, the higher the fuel consumption. Up to around 100 km/h, rolling resistance has a greater effect on fuel consumption than aerodynamic drag.

The belt of this newly developed tyre for the C-Class contains a multi-layered mesh of high-strength steel for less deformation. It is also lighter in weight than conventional designs, enabling a further 1.7 kilograms or so to be saved per set of tyres. The secret, however, mainly lies in the chemical composition: the rubber compound for the treads and side walls is designed to ensure that rolling resistance is reduced by 17 per cent, while retaining the same good handling and braking characteristics.

#### **Aerodynamic fine-tuning: Cd figure an outstanding 0.25**

At 120 km/h, the aerodynamic drag of the vehicle body already accounts for around 50 per cent of all the dynamic resistance a passenger car must overcome. Accordingly Mercedes-Benz has been very active in the field of aerodynamics for many years, and has achieved remarkable advances that have had a positive impact on the fuel consumption figures of cars bearing the Mercedes star.

With a drag coefficient (Cd figure) of 0.27, the C-Class is among the most aerodynamically efficient notchback saloons in its market segment. This is the result of a whole series of intelligent details, such as the tail lights with ventilation slits: these reduce drag by influencing the airflow along the side walls, causing it to break off at the tail lights without causing turbulences behind the vehicle's rear end. In this way the patented tail lights of the C-Class replace the usual spoiler lips.

In the new BlueEFFICIENCY versions of the C 180 KOMPRESSOR and C 200 CDI, Mercedes engineers have succeeded in bettering even the highly impressive Cd figure of the C-Class with a number of other detailed measures:

- Smooth underbody cladding ensures that the air can flow beneath the vehicle body without turbulences. The full engine compartment and underbody panelling of the diesel models is also standard equipment in the BlueEFFICIENCY version of the C 180 KOMPRESSOR.

- Partially blanking off the radiator grille reduces the airflow into the engine compartment, thereby lowering wind resistance. Adequate cooling of the four-cylinder engines is of course uncompromised by this measure.
- Sealing the joins between the bonnet and headlamps, as well as between the bumper and headlamps, improves the airflow around the front end.
- The housings of the exterior mirrors were developed in the wind tunnel, and are particularly streamlined in form.
- Lowering the suspension by 15 millimetres reduces aerodynamic drag, and has a particularly noticeable effect at higher speeds.
- The design of the new lightweight wheels also meets aerodynamic requirements, and improves the airflow around the vehicle flanks.

Thanks to this package of aerodynamic measures the Cd figure for the new BlueEFFICIENCY models has been reduced by seven per cent to 0.25, representing another major contribution to fuel economy.

### **Efficient energy management: needs-driven power steering control**

It is not only intelligent lightweight construction, tyres with a low rolling resistance and good aerodynamics that help to further improve the economy and environmental compatibility of today's passenger cars. Intelligent control of ancillary units and the reduction of friction losses can also make an important contribution in this respect.

Energy management is the key: in the BlueEFFICIENCY models of the C-Class, the power steering system is controlled on a needs-driven and therefore energy-saving basis. The standard power steering in the C-Class has an additional valve which switches off the servo pump when it is not required. While this pump operates continuously in all driving situations in conventional steering systems, the new valve interrupts the flow of hydraulic fluid when the car has followed a

straight course for a while, switching off the servo pump. This has the advantage that the engine no longer needs to provide energy to drive the servo pump, meaning that it operates more economically. Thanks to this technology, the NEDC fuel consumption is cut by 0.14 litres per 100 kilometres – which equates to a reduction of 2.5 per cent in the case of the C 200 CDI. Page 22

As a further contribution to reduced weight and friction, the BlueEFFICIENCY C 180 KOMPRESSOR and C 200 CDI saloons are equipped with a newly developed final drive featuring further-improved antifriction bearings, forged differential gears and a sophisticated lightweight construction. These measures reduce the friction forces within the transmission, hence the engine expends less energy in overcoming them.

The longer final-drive ratios of the BlueEFFICIENCY versions also help to reduce fuel consumption. These are as follows:

- C 180 KOMPRESSOR: 2.87 : 1 (rather than 3.07 : 1)
- C 200 CDI: 2.47 : 1 (rather than 2.65 : 1)

The C 180 KOMPRESSOR and C 200 CDI models are both equipped with the six-speed manual transmission with overdrive characteristics as standard. With a ratio of 0.838 : 1 and 0.828 : 1, respectively, sixth gear considerably lowers the engine speed and fulfils a major precondition for fuel-efficient driving.

### **Useful information: new gearshift and fuel consumption display in the cockpit**

A newly developed gearshift display in the cockpit informs the driver when he should change gear to save fuel. Experience gained during the Mercedes-Benz "ECO Training" courses has shown that drivers are able to make average fuel savings of up to 15 per cent with an economical and energy-conscious style of driving – without any loss of driving enjoyment.

In fact "ECO Training" will practically come as standard in the future BlueEFFICIENCY versions of the C-Class: in addition to gearshift recommendations, the instrument cluster features a newly developed display showing the present fuel consumption. This will appear in the centre of the speedometer as an easily legible bar chart. A brief glance at the display is sufficient to tell the driver the current fuel consumption in litres per 100 kilometres. The bar chart responds immediately when the driver changes to a higher gear or takes his foot off the accelerator to use the deceleration fuel cut-off function.

#### **Up-to-date engines: downsized C 180 with the same output**

Under the bonnets of the new model variants can be found well-proven four-cylinder engines, which are amongst the bestselling power units in the model range: around one quarter of all C-Class buyers opt for these four-cylinder engines.

For the C 180 KOMPRESSOR Mercedes-Benz has reduced the overall displacement from 1796 to 1597 cubic centimetres, while retaining the same output (115 kW/156 hp) and torque (230 Newton metres).

This downsizing of the engine's displacement, combined with measures for optimising the combustion chamber, mixture formation and engine friction, adds up to a total potential fuel saving of 0.35 litres per 100 kilometres.

All in all, the NEDC fuel consumption of the C 180 KOMPRESSOR in BlueEFFICIENCY guise is just 6.5 litres of premium petrol per 100 kilometres. This is 0.9 litres or twelve per cent less than for the standard production model.

The displacement, output and torque of the CDI engine remain unchanged. The package of efficiency measures has enabled the NEDC fuel consumption of the BlueEFFICIENCY version of the C 200 CDI to be cut by 0.6 litres (10.5 per cent) to just 5.1 litres per 100 kilometres. This corresponds to CO<sub>2</sub> emissions of 135 grams per kilometre.

Key engine, performance and fuel consumption figures at a glance:

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	<b>C 180 KOMPRESSOR BlueEFFICIENCY</b>	<b>C 200 CDI BlueEFFICIENCY</b>
<b>Displacement</b>	1597 cc	2148 cc
<b>Output</b>	115 kW/156 hp at 5200 rpm	100 kW/136 hp at 3800 rpm
<b>Max. torque</b>	230 Nm at 3000-4500 rpm	270 Nm at 1600-3000 rpm
<b>0-100 km/h</b>	9.5 s	10.4 s
<b>Top speed</b>	230 km/h	220 km/h
<b>NEDC consumption*</b>	6.5 l/100 km	5.1 l/100 km
<b>CO<sub>2</sub> emissions</b>	156 g/km	135 g/km

\*combined consumption

### **C 350 CGI: ten per cent more economical thanks to direct petrol injection**

As of late 2008, the BlueEFFICIENCY C-Class line-up will be rounded off by the world's first petrol engine with spray-guided direct injection. Cue the new C 350 CGI BlueEFFICIENCY, which is being presented by Mercedes-Benz at the Geneva Motor Show. Despite generating a higher power output and even greater torque, the new model consumes around ten per cent less fuel than the C 350 saloon with the current V6 engine. The C 350 CGI is therefore set to offer a hitherto unrivalled combination of power delivery, agility, safety, economy and environmental compatibility in this vehicle class.

The CGI engine summons up an output of 215 kW/292 hp and 365 Newton metres of peak torque at 3000 rpm. 15 kW/20 hp and 15 Newton metres more respectively than the current V6 unit with port injection. Thanks to state-of-the-art engine technology, fuel consumption of the C 350 CGI BlueEFFICIENCY has been cut to approx. 8.4 litres per 100 kilometres (provisional NEDC figure), approx. one litre below the figure for the current C 350. As such, the new

six-cylinder engine makes a major contribution to reducing carbon dioxide emissions. These significantly improved output and fuel consumption figures are achieved whilst still using cost-efficient premium grade petrol (RON 95).

The CGI unit also offers an impressive driving experience combined with superb economy and environmental compatibility: the C 350 CGI BlueEFFICIENCY takes just 6.2 seconds to accelerate from 0 to 100 km/h and is capable of an electronically limited top speed of 250 km/h (provisional figures).

Mercedes-Benz became the first car maker to put spray-guided direct petrol injection into series production in 2006. This technology is markedly superior to the direct injection system with wall-guided combustion used by other car makers, as the Mercedes technology achieves far better fuel utilisation due to its higher thermodynamic efficiency, meaning both reduced fuel consumption and lower exhaust emissions.

The six-cylinder engine demonstrates its particular strengths during stratified-charge operation when the powerplant operates with a high excess of air and is thus very fuel-efficient. In the Mercedes direct injection engine, this favourable lean-burn operation with a stratified charge in the combustion chamber is also possible for the first time at higher engine speeds and load ranges because the engine's combustion chambers are injected with several successive jets of fuel in fractions of a second during each power stroke, thereby substantially improving mixture formation, combustion and consumption. Whereas stratified-charge operation was previously only feasible over a limited partial load range, the CGI six-cylinder engine can now be operated in stratified charging mode over a wider range.

### **Piezoelectric injectors: enabling lightning fast multiple injection**

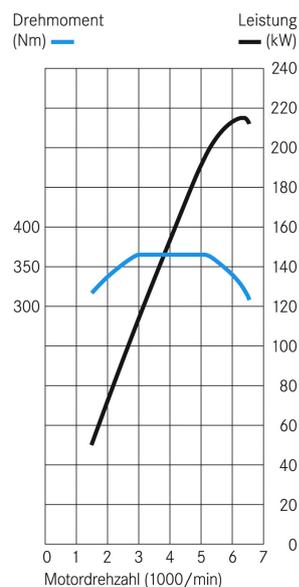
High-speed, ultra-precise piezoelectric injectors are among the key components of the second-generation direct petrol injection system. The invention of these injectors has spawned virtually all the advances in the spray-guided combustion system. The piezoelectric valves open their injectors outwards to create an

annular gap just a few microns wide, allowing the fuel jet to form with a uniform, hollow cone-shaped pattern. Thanks to millisecond switching times, the piezoelectric injectors also permit the multiple injection that promotes lean-burn operation and helps create the ideal conditions for the engine's exemplary consumption figures. A high-pressure pump with downstream distributor and pressure valve supplies the fuel and regulates the amount delivered in accordance with requirements. With a pressure of up to 200 bar, the system develops around 50 times the fuel pressure of a conventional port-injection system.

The combustion system developed by the Mercedes engineers, with multiple, closely spaced injections during each power stroke, also serves to enhance the V6 engine's smooth running and emissions characteristics. Measurements show that untreated emissions (hydrocarbons) are reduced by more than half in the warm-up phase. Active control of injection and combustion also produces higher temperatures in the exhaust manifold, thereby warming up the catalytic converters faster.

The data for the new C 350 CGI BlueEFFICIENCY at a glance:

<b>Displacement</b>	3498 cc
<b>Bore/stroke</b>	92.9/86.0 mm
<b>Compression ratio</b>	12.2
<b>Output</b>	215 kW/292 hp at 6400 rpm
<b>Max. torque</b>	365 Nm at 3000-5100 rpm
<b>NEDC fuel consumption</b>	8.7 l/100 km*
<b>Acceleration 0-100 km/h</b>	6.2*
<b>Top speed</b>	250 km/h**



\*provisional figures; \*\*electronically limited

Four-valve technology, variable camshaft adjustment for the intake and exhaust sides, two-stage intake manifold, balancer shaft and an intelligent heat management system with map-controlled thermostat are some of the other technical highlights that the direct injection engine has adopted from the port-injected C 350 engine. The crankcase and cylinder head are made out of aluminium; the cylinders are fitted with low-friction, dimensionally stable liners made out of a lightweight aluminium-silicon alloy.

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### **Individual fuel-saving measures**

The BlueEFFICIENCY technology for the direct-injection petrol unit incorporates further fuel-saving measures. These include the newly developed windscreen made of laminated glass, which weighs around 1.2 kilograms less than before, forged lightweight wheels and low rolling resistance tyres.

The needs-driven and therefore energy-saving control of the power steering also forms part of the standard specification on the C 350 CGI. Finally, Mercedes-Benz has further improved the saloon's very low aerodynamic drag by fitting new, streamlined exterior mirror housings.

### **Lightweight construction**

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- Weight-optimised, laminated windscreen with Maybach technology
- Firewall insulation with varying material thicknesses
- Forged lightweight wheels
- Newly developed tyres with a mesh of high-strength steel

### **Aerodynamics**

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- Full underbody panelling with a smooth surface
- Partially shrouded radiator grille
- Sealed joints at the headlamps
- Streamlined exterior mirror housings
- Lightweight wheels with aerodynamic design
- Lowered suspension

### **Rolling resistance**

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- Newly developed tyres with 17 per cent less rolling resistance

### **Energy management**

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- Energy-saving control of the power steering's servo pump

### **Drive**

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- Downsized four-cylinder petrol engine with the same output
- Six-speed manual transmission with overdrive characteristics
- Final drive with low-friction bearings and differential gears
- Longer final-drive ratio
- Spray-guided direct petrol injection on C 350 CGI (available from late 2008)

### **Display concept**

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- Newly developed gearshift and current fuel consumption display in the cockpit

## The new-generation SL-Class: sportier than ever before

- **New design idiom with unmistakable sporty overtones**
- **New, dynamic direct-steer system**
- **New, particularly free-revving sports engine**

Mercedes-Benz is continuing its long-standing tradition of producing legendary sports cars with the new-generation SL-Class, which is celebrating its public premiere in Geneva. 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 thrilling, active motoring that provides a profound sense of well-being – for hallmark Mercedes refinement at the highest, sportiest level. The world's most successful premium roadster in its class now features a new look which gives the car a distinct air of sportiness and effortless assurance.

When it came to developing a concept and design for the new-generation SL-Class, the Mercedes-Benz engineers set out with the aim of accentuating 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 imposing radiator grille, whose arrow shape symbolises sporty virtues such as the car's go-getting performance potential.

A horizontal fin adds visual width to the radiator grille and thereby emphasises the muscular appearance of the SL's front end, which consequently seems surprisingly new yet, at the same time, reassuringly 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 poise and assurance 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 homage 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 modern interpretation for the new Mercedes sports car.

These classic design features drawn from five decades of roadster tradition are in stylish harmony with new elements of the modern Mercedes design idiom, including the distinctive V-shape of the 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 first and foremost by a 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. These Mercedes sports cars have 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 whose principal benefit is the lower steering forces when driving slowly, manoeuvring or parking. The difference is the 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 in a more spontaneous or, in other words, sportier fashion. Page 31

When driving slowly or parking, the new technology combines with the speed-sensitive power steering to provide even more comfort than before as 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 a four-link front suspension and multi-link independent rear suspension. Meanwhile the Active Body Control (ABC) system, included as standard on the SL 500 and the SL 600, remains a unique masterpiece. It compensates for the body's pitching, rolling and lifting movements, 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 supreme 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 will now run 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**

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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 propels the roadster from 0 to 100 km/h in 7.8 seconds, whilst fuel consumption on the NEDC driving cycle 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 the new SL generation 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 free-revving 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 per cent to 232 kW/316 hp (at 6500 rpm), while the peak torque has been increased by 10 Newton metres and now stands at 360 Newton metres. This powerplant 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: at 9.9 litres per 100 kilometres, the new SL 350 is 0.4 litres more economical than the preceding 200-kW/272-hp model on the NEDC driving cycle.

The sporty character of the V6 power unit is also clearly audible. Its powerful, sonorous sound is the result of meticulous work carried out by sound designers, whose specialist skills also contribute to the sense of 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 by providing a new double-declutching function that is activated during manual downshifts.

Quite apart from producing an exceedingly 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-alteration effects.

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 helped by 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. 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 high-intensity bi-xenon headlamps, which are considerably more powerful and 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, as well as the cornering light function and active light function. The variable-control bi-xenon headlamps activate the various light 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 per cent.

The active light function causes the headlamps to pivot to the side in line with the steering angle when the driver enters a bend, allowing him to see around 25 metres further into a long bend than is the case with 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 intersections, this light 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 a vital contribution to road safety. Page 34

### **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 like a glove, 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".

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 exquisite 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 and a remote-locking boot lid.

### **AIRSCARF: Mercedes invention extends the open-air season**

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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 passenger.

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

### **Infotainment: latest multimedia technology in the centre console**

The new-generation SL is also fit 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 device combines a car radio including a dual 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"), which 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.

Even more high-tech electronics are available ex factory, as Mercedes customers can also 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 a Music Register for storing around 1000 MP3 tracks. A saved database 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 ability to recognise entire words. 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 stored in the phone book.

For the first time, it is also possible to connect an iPod, USB stick or other external audio device to the COMAND system thanks to a newly developed, universal media interface in the centre console (optional). This UCI (Universal Consumer Interface) is more than just an electronic "socket", however; it also includes an ECU that links the external music storage device to the SL's on-board electronics and control system. In this way, the iPod audio tracks also appear in the instrument cluster and on the COMAND display in the centre console, and can be simply called up by using the buttons on the multifunction steering wheel. The audio device's battery is charged for as long as the portable music player is connected to the car via the UCI.

For a complete in-car music experience, Mercedes-Benz can equip the new-generation SL with the Harman Kardon "Logic7" sound system (optional extra), which is also used in the S-Class and whose abilities have 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 speakers and state-of-the-art surround technology.

## Fine-tuning for the design trendsetter

- **Electrifying, muscular trendsetter**
- **Modified front end and new rear apron**
- **New-look instrument cluster**

Mercedes-Benz is injecting the CLS with yet greater appeal and unveiling the new generation of this one-of-a-kind four-door coupé – the pioneer of a whole new automotive segment – for the very first time in Geneva. ‘Understated but masterly’ neatly sums up the result of the restyling programme for the CLS. At the front, it is the modified radiator grille that stands out, with two fins now instead of the previous four. The diamond-shaped, three-dimensional grilles painted in atlas grey that cover the air intakes project an even greater air of self-assurance as well as adding further emphasis to the vehicle's width. The exterior mirrors have also been given a new look. The LED side indicator lamps that are built into them are arranged in the form of an arrow to produce a most eye-catching effect, especially in the dark. The mirror surface has furthermore been enlarged by 32 per cent to afford a clearer view of the traffic behind and thereby boost active safety.

The side view is dominated by new, attractively styled light-alloy wheels, measuring either 17 inches (CLS 280, CLS 320 CDI and CLS 350 CGI) or 18 inches (CLS 500) in diameter. When viewed from the rear, the new-generation CLS makes its mark with a new rear apron, new tail lights, as well as modified tailpipes. The centre section of the rear bumper now drops down further, while the additional light-catching contour running along it adds to the impression of breadth. This is further emphasised by the exhaust tailpipes, which are trapezoidal in shape, and not oval as before. LED technology is now deployed for the tail lights: the brake lamps, tail lamps and indicator lamps all make use of the extra-fast-reacting light-emitting diodes. Just like the side indicators in the exterior mirrors, the rear indicators look like arrows when they light up, which is particularly striking in the dark.

The same is true of the optical fibres at the side, which are always activated whenever the low-beam headlamps are switched on. A new deactivation function for the low-beam headlamps when the ignition is switched off helps to optimise energy management.

The new bodywork details harmonise perfectly with the multi-award-winning design of the CLS and make the four-door coupé always look as if it is about to dash off. Almost four years on from its world premiere, the electrifying, muscular lines of the trendsetter are as unique and as unmistakable as ever.

#### **New inside: three-spoke steering wheel and new telematics generation**

Great attention to detail was paid while updating the interior too: modifications include a restyled leather steering wheel in a three-spoke design with multifunction buttons, as well as a new-look instrument cluster, whose white dials now contrast distinctly with the chased surface of the backplate. The previous matt laurel colour scheme has been replaced with new chestnut wood trim elements.

The CLS also features the new telematics generation, whose high-performance componentry combines straightforward operation and logical menu navigation with flawless in-car entertainment. Features include speed-sensitive volume control, a keypad for entering telephone numbers and radio frequencies, an MP3-compatible CD and DVD player, as well as a Bluetooth interface which can establish a wireless connection between a mobile phone and the vehicle's hands-free system. The Audio 20, Audio 20 CD with CD changer, Audio 50 and Audio 50 APS with DVD changer and LINGUATRONIC voice control system have now been upgraded to a 5-inch colour screen. The COMAND APS comes with a high-resolution 6.5-inch colour display, LINGUATRONIC for audio, navigation and telephone, a music register for storing audio files, plus an SD memory card slot.

## **CLS 280: new entry-level engine variant with 170 kW/231 hp**

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The CLS 280 is equipped with a new entry-level engine, a sophisticated V6 powerplant with a displacement of 2996 cc developing a peak output of 170 kW/231 hp and a maximum torque of 300 Newton metres. This propels the CLS 280 from standstill to 100 km/h in 7.7 seconds and gives it a top speed of 245 km/h. Combined fuel consumption on the NEDC driving cycle is 9.8 - 10.0 litres per 100 kilometres. The second V6 petrol model in the range is the CLS 350 CGI. Its advanced six-cylinder engine featuring piezoelectric direct injection and spray-guided combustion generates 215 kW/292 hp and returns impressively low fuel consumption figures of 9.1 to 9.3 litres per 100 kilometres (NEDC combined). Under the bonnet of the CLS 500 is a V8 drive unit with a displacement of 5.5 litres and a maximum output of 285 kW/388 hp. What makes the CLS 320 CDI with its 165-kW/224-hp V6 diesel engine especially thrilling is the formidable torque of 540 Newton metres on the one hand and, on the other, low fuel consumption of just 7.6 - 8.1 litres of diesel for every 100 km (NEDC combined).

All CLS models are equipped with the 7G-TRONIC seven-speed automatic transmission as standard. In the manual shift mode "M", the driver is able to shift through the gears using shift paddles on the steering wheel if desired. This shortens the 0-100 km/h acceleration time by 0.2 seconds.

## **CLS 63 AMG flagship model with AMG SPEEDSHIFT PLUS 7G-TRONIC**

The flagship model in the CLS range, the CLS 63 AMG, is powered by the AMG 6.3-litre V8 engine with 378 kW/514 hp and 630 Newton metres of torque. The high-revving, naturally aspirated engine now makes its presence known in an even more distinctive fashion: the AMG sports exhaust system's redesigned rear silencers deliver an even more captivating soundtrack through the two sets of oval-shaped, chromed twin tailpipes. The AMG SPEEDSHIFT PLUS 7G-TRONIC transmission now incorporates a double-declutching function which is activated automatically during downshifts.

This does more than just intensify the emotive driving experience - the virtually load-free downshift procedure also leads to a reduction in load-alteration effects, which is of particular benefit when braking ahead of corners on the race track. The CLS 63 AMG accelerates from 0 to 100 km/h in 4.5 seconds, while its top speed is limited electronically to 250 km/h.

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Also new is the black-painted radiator grille with two fins instead of the previous three, which blends in perfectly with the AMG bodystyling. The AMG light-alloy wheels, with their new triple-spoke design and a titanium grey, high-sheen paint finish, now measure 19 inches in size instead of 18 as before, and are shod with tyres measuring 255/35 R 19 at the front and 285/30 R 19 at the rear. Inside, the CLS 63 AMG boasts a new AMG sports steering wheel with a three-spoke design. The grip areas are specially contoured and trimmed in perforated leather. Two aluminium AMG shift paddles allow manual gear selection.

## Sports Coupé with high fun factor

- **Engines more powerful and more economical**
- **Restyling at the front and rear**
- **New sports package with direct-steer system**

Mercedes-Benz is unveiling a stand-alone model series in the guise of the new CLC, the compelling entry-level model in the Stuttgart-based brand's coupé family. The Sports Coupé's design, technology and equipment meet the discerning requirements of young drivers looking for an athletic car that gives an entertaining drive, while at the same time delivering the hallmark Mercedes quality standards in terms of safety, comfort, environmental compatibility and functionality. Compared to the previous Sports Coupé, Mercedes engineers have newly developed or improved more than 1100 components.

The compact body dimensions and powerful proportions underline the sporty appearance of the new CLC. The Mercedes designers have completely redesigned the front and rear so that the Sports Coupé embraces the contemporary Mercedes design idiom, with its distinctive coupé radiator grille featuring a large Mercedes star in the centre and the new projection-beam headlamps. The S-Class, the luxury CL-Class coupé and the C-Class provided the inspiration for its styling. The large, newly designed boot lid conceals a variable luggage compartment with a capacity of up to 1100 litres. The new tail lights, the long row of LEDs forming the third brake light and the rear bumper subdivide the rear end and accentuate its width.

The interior of the new Mercedes-Benz CLC is akin to a modern bespoke suit, having a precise and comfortable fit. Sports seats with further improved lateral support, a three-spoke multifunction steering wheel, automatic climate control and brushed aluminium trim all come as standard. A choice of seat covers in black, alpaca grey and a particularly stylish combination of black and red are available to create an individual interior colour scheme.

Mercedes-Benz has put together the sports package for drivers looking for extra sporting flair. It includes exclusive technical innovations and extras such as 18-inch light-alloy wheels, wide-base tyres, headlamps with a black-tinted interior frame, a lowered sports suspension, a leather sports steering wheel and dark-tinted aluminium trim. Another special feature in the CLC that has been adopted from motor racing cars is the instrument cluster with its red needles for the speedometer and rev counter. When the ignition is switched on, both needles spin right around the scale once then return to their starting position.

The standard specification of the sports package includes the new direct-steer system, which also features in the SL and SLK and further enhances the agile handling of the CLC. This new feature is based on the speed-sensitive power steering and additionally offers a variable rack ratio which changes as a function of the steering angle, so that the driver only has to turn the wheel slightly when cornering; the Sports Coupé therefore responds far more spontaneously to steering commands and offers even sportier handling. As a result, the direct-steer system can also help to improve handling safety in critical situations – for instance when taking sudden evasive action – as the field tests conducted by Mercedes engineers have demonstrated.

**Engines: fuel consumption reduced by up to 10.8 per cent**

The new CLC is available with a choice of four four-cylinder and two six-cylinder engines developing outputs from 90 kW/122 hp to 200 kW/272 hp. The 135-kW/184-hp power unit in the CLC 200 KOMPRESSOR now has 15 kW/20 hp more output, and consumes only 7.8 to 8.2 litres per 100 kilometres on the NEDC driving cycle – up to 0.7 litres less than before. With its advanced turbodiesel engines, the CLC falls into the five-litre category in fuel consumption terms: the CLC 200 CDI limits itself to 5.8 to 6.1 litres per 100 kilometres (NEDC), i.e. up to 10.8 per cent less than the preceding model. The CDI models are capable of covering over 1000 kilometres with just one tank of fuel (62 litres).

The six-speed manual transmission comes as standard with all engine variants. Mercedes-Benz can also supply a five-speed automatic transmission for the four-cylinder units, and the 7G-TRONIC seven-speed automatic transmission for the V6 models. In combination with the sports package, the driver can use shift paddles on the steering wheel to select the gears of the automatic transmission manually and thereby make optimum use of the engines' high power reserves whenever the driving situation calls for it.

### **Infotainment: latest technology for navigation and mobile musical pleasure**

The Mercedes engineers have developed a new generation of infotainment units, which will also now feature in the CLC. Three units are available offering a splendid combination of features, including colour display, dual tuner, speed-sensitive volume control and Bluetooth mobile phone interface. For the first time, an iPod, USB stick or other external audio devices can also be connected to the infotainment system. A new universal media interface (optional extra) links these devices to the Sports Coupé's on-board electronics and control system, allowing the iPod tracks to be displayed in the instrument cluster and on the colour screen in the centre console. Tracks can then be selected conveniently using the buttons on the multifunction steering wheel.

The new Audio 50 APS and COMAND APS units come with a Europe-wide DVD or hard-disc-based navigation system respectively. The LINGUATRONIC voice-operated control system, which Mercedes-Benz has upgraded so that it is now capable of recognising whole words, is fitted as standard if the integrated six-disc DVD changer is specified. This enables the telephone, audio and navigation systems to be operated with particular ease.

## Luxury CL 500 Coupé with all-wheel drive for first time

- **Even better traction on slippery surfaces**
- **The latest-generation 4MATIC system**

From summer 2008, Mercedes-Benz will also be offering all-wheel drive for its luxury CL-Class coupé for the first time. The new CL 500 4MATIC offers even greater traction and handling stability in the wet, in snow or on ice.

Mercedes-Benz is equipping the CL 500 4MATIC with the same latest-generation all-wheel drive system which is also proving its merit in the S-Class. 4MATIC is permanently active and therefore requires no response time to come to the driver's aid in unfavourable weather and driving conditions. As a result, critical situations can be mastered with greater ease.

The heart of the all-wheel drive system is a transfer case with a central differential, which has been integrated into the seven-speed automatic transmission. From here, the drive torque is split between the front and rear axle at a ratio of 45 to 55. Another new feature is the twin-plate clutch at the central differential. This produces a basic locking effect of around 50 Newton metres between the front and rear axle, which allows variable torque shift between the axles as the situation dictates and thereby achieves further significant improvements in traction and stability in the 4MATIC models.

Mercedes-Benz combines 4MATIC as standard with the Electronic Stability Program ESP® and the 4ETS traction system, which brakes spinning wheels as required, increasing the drive torque to the wheels with good grip. The automatic brake pulses which increase traction when pulling away on slippery surfaces and can improve active safety in critical situations are metered by the system on the basis of sensor signals.

This allows 4ETS to achieve the effect of conventional differential locks while offering more comfort than the technology found in other all-wheel drive cars. Weighing just 70 kilograms, the new permanent all-wheel drive system developed by Mercedes-Benz is the lightest drive system of its kind.

#### **Extra-efficient all-wheel drive technology: no fuel penalty in 4MATIC model**

Beneath the bonnet of the new CL 500 4MATIC is a cutting-edge eight-cylinder engine with an output of 285 kW/388 hp and 530 Newton metres of torque, which is on tap between 2800 and 4800 rpm. The combined fuel consumption on the NEDC driving cycle is 12.1 litres per 100 kilometres, which places it on a par with the rear-wheel drive version of the CL 500 – a further bonus of the new, highly efficient Mercedes all-wheel drive system. The CL 500 4MATIC requires just 5.4 seconds to accelerate from zero to 100 km/h, and reaches an electronically limited top speed of 250 km/h.

The new 4MATIC model in the CL-Class range is characterised by the same high-quality safety and comfort features as the luxury coupé with rear-wheel drive, and additionally offers PASSION leather appointments, a ski bag, multicontour front seats and 18-inch nine-spoke light-alloy wheels. Other Mercedes innovations available as an option include the radar-based Brake Assist PLUS, the PRE-SAFE® brake and night view assist.

## More powerful, more economical, more intense: rediscovering roadster driving pleasure

- **New front and rear with sportier character**
- **New sports engine and ingenious direct-steer system**

The Mercedes-Benz SLK-Class roadsters have long captured the hearts of sports car enthusiasts. Following an extensive facelift programme incorporating around 650 newly developed components, the new-generation SLK models are going on show to a European public for the first time in Geneva. They are now more dynamic than ever and offer an even more emotionally charged driving experience.

Since their first appearance in 1996, the compact SLK roadsters have come to symbolise Mercedes-Benz' dynamic brand image. Already a familiar sight on our roads, the second-generation two-seater is now being further enhanced with the implementation of a raft of measures, the aim being to further emphasise the car's sporty character and continue the SLK-Class success story by introducing new dynamic and powerful elements. Some 310,000 first-generation roadster models were sold between 1996 and 2004. And around 185,000 customers – some 60,000 of them in Germany alone – have already purchased the second-generation model since its launch in March 2004 (figures at year-end 2007). This means that total unit sales of the SLK roadster now stand at around the half-million mark.

The new-generation SLK blazes a trail of new sporty highlights, bestowing yet greater appeal on this thriving two-seater with the trendsetting vario-roof that transforms the car from a roadster into a weatherproof coupé in a matter of seconds.

## **Striking character: more pronounced V-shape at front and diffuser-style rear** Page 47

The designers have honed the looks of the cult two-seater for added sportiness. Eye-catching features include the new-look front bumper with a modified air-dam arrangement and a more pronounced arrow shape. Plus the area around the Mercedes star has been restyled to give it a more striking look. The tail end has also been remodelled by the design team, with the diffuser-look styling at the bottom giving the roadster an even more powerful appearance from the rear too. This is further emphasised by the trapezoidal exhaust tailpipes and the AMG-inspired darkened tail lights. The exterior mirrors now have LED indicator repeaters with a pronounced arrow shape, and also have a larger mirror area. The range of light-alloy wheels is also almost entirely new.

### **High-quality cockpit and new three-spoke sports steering wheel**

Many of the interior's details have undergone remodelling too, and the interior has been refined as a whole by meticulous material selection. Particular care was taken to optimise the interior in such a way as to make it that much more driver-focused again. Centrepieces include a new three-spoke sports steering wheel with multifunction buttons as well as a new instrument cluster with intriguing-looking dial bezels.

New "gullwing red" leather appointments will now be available, which are reminiscent of the interior appointments in the legendary 300 SL gullwing model. Further new additions include nappa leather appointments in "natural beige", which complement the new "pale burr walnut" and "black ash grain" wood trims perfectly.

### **Enhanced audio and telematics systems**

Mercedes-Benz is installing the new generation of audio and telematics componentry in the SLK too for the first time. This boasts improved user friendliness together with even more handy functions. Standard features integrated in every radio include a hands-free facility using Bluetooth technology,

plus – as an option – a new media interface in the glove compartment, which enables mobile audio devices such as the iPod to be fully integrated into the audio system and operated from its control panel.

The switch to the new telematics generation also sees Mercedes-Benz offering the optimised LINGUATRONIC voice control system, renowned for its outstanding operation, as an option for the SLK-Class for the first time.

### **Voluminous surround sound even with the roof down**

Passengers can enjoy a unique listening experience, regardless of whether the vario-roof is open or closed, thanks to the optionally available Harman Kardon® Logic7® sound system. The passenger compartment is filled by a rich surround sound for crystal-clear listening pleasure of an unprecedented standard for a roadster.

### **High-revving sports engine: added power and far lower fuel consumption**

Making a mighty contribution to the sporty billing of the new-generation SLK are three reengineered drive units, which all make their mark with lower fuel consumption, resulting in reduced CO<sub>2</sub> emissions. Both the four-cylinder engine in the SLK 200 KOMPRESSOR and the six-cylinder sports engine in the SLK 350 benefit from a substantial increase in output and torque. The SLK 55 AMG retains its familiar engine – an eight-cylinder unit that has lost none of its mesmerising performance capability and remains a unique selling point in the SLK segment.

The Mercedes-Benz engineers devoted particular attention to the V6 sports engine with high-revving concept, which is also being fitted in the new-generation SLK. By performing a major overhaul of the engine's mechanics, the engineers have succeeded in giving the V6 unit a completely new lease of life. Although the displacement remains the same at 3498 cc, the engine now musters up 224 kW/305 hp at 6500 rpm – some 24 kW (33 hp) more than its predecessor. The peak torque has also been boosted, by 10 Nm, and now stands at 360 Nm when the engine is running at 4900 rpm.

This has been achieved by raising the rev speed limit to 7200 rpm, at the same time as increasing the compression ratio, fitting a new intake manifold and making extensive modifications to the valve gear.

The new engine also strikes a far more emotive-sounding note after being deliberately tuned to deliver resonant sports engine acoustics, with overrun mode producing a particularly emotion-stirring sound. In combination with the 7G-TRONIC automatic transmission, the engine management system furthermore triggers an automatic double-declutching function during downshifts – not only does this create a very sporty soundtrack, it helps to limit load-alteration effects too.

Yet despite its higher power output and such high-calibre performance, fuel consumption in the SLK 350 has been cut by a sizeable margin. With the six-speed manual transmission on board, combined fuel consumption is just 9.5 litres per 100 km, a remarkable reduction of 1.1 litres per 100 km; if the 7G-TRONIC automatic transmission is fitted, the sports engine limits itself to a mere 9.2 litres of fuel for every 100 km on the combined cycle – 0.9 litres less than previously. The cut in fuel consumption also lowers CO<sub>2</sub> emissions by 23 g/km to 219 g/km on the automatic model (manual: 227 g/km, a reduction of 28 g/km).

### **Choice of three further engines**

Following the facelift, the engine line-up for the second generation of the successful SLK-Class will comprise three further variants:

- The output of the four-cylinder supercharged engine has been boosted by 15 kW/21 hp (to 135 kW/184 hp), while its torque has been increased from 240 to 250 Newton metres. Combined fuel consumption has dropped by 1.0 litre to 7.7 litres per 100 km. This in turn reduces CO<sub>2</sub> emissions by 27 g/km to 182 g/km.

- The SLK 280 has also undergone further improvement with respect to fuel economy and therefore CO<sub>2</sub> emissions. Fuel consumption has dropped by 0.4 litres to 9.3 litres/100 km (automatic: -0.2 litres to 9.1 litres/100 km) and CO<sub>2</sub> emissions by 11 g to 220 g/km (automatic: -6 g to 216 g/km).
- The SLK 55 AMG is equipped with the familiar 5.5-litre V8 powerplant developing 265 kW/360 hp and a peak torque of 510 Newton metres.

The three new models in the SLK range all come with a precision six-speed manual gearshift. The SLK 55 AMG retains the 7G-TRONIC Sport seven-speed automatic transmission. The optional extras available include a five-speed automatic transmission for the SLK 200, as well as the 7G-TRONIC seven-speed automatic transmission or, alternatively, the 7G-TRONIC Sport with shift paddles on the steering wheel for the six-cylinder SLK 280 and SLK 350 sports engine models.

### **New direct-steer system for outstanding agility and tangible fun at the wheel**

A newly developed direct-steer system with variable power assistance that elicits the very best from the suspension's sporty capabilities is optionally available (standard on the SLK AMG 55). It combines agility and manoeuvrability on twisting country roads with light steering forces when parking and assured steering characteristics at high speeds.

The direct-steer system is derived from the previous speed-sensitive power steering and operates purely mechanically. This dispenses with the need for elaborate actuator units and complex sensors, which would otherwise impair the flow of forces between the wheels and hands, thereby compromising steering precision. At the heart of the system is a new rack with ingeniously devised gearing, which ensures that the steering gear ratio changes in tune with the steering angle. In and around the central position, the steering has an indirect ratio for good straight-line stability, resulting in tremendous assuredness when travelling at high speeds. At a steering angle of just 5 degrees, the ratio starts to

increase very rapidly and the steering feels much more direct. As a result, the number of steering wheel turns from lock to lock is reduced by around 25 per cent with the new direct-steer system. Consequently, relatively small turns of the steering wheel are sufficient for changing course when driving in city traffic. Fast sequences of bends on rural roads, on the other hand, can be negotiated almost intuitively with relatively small steering movements – with assurance, precision and a healthy dose of driving pleasure.

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### **Visually enhanced SLK 55 AMG**

On a technical level, the SLK 55 AMG remains almost unchanged. The only differences are a few visual enhancements. The front end of the AMG model now features a new apron with a black-painted transverse fin and side air outlets, as well as darkened headlamps.

## The name says it all: the Viano X-CLUSIVE special model

- **Exterior exudes dynamism and sporty flair**
- **Interior pampers occupants with outstanding comfort**
- **Powered by six-cylinder engines**

The airy, spacious feel of an MPV coupled with the exclusive appointments of a luxury saloon and the technical and visual attributes of a sports car – the new Viano X-CLUSIVE conjures up this exceptional combination. The name says it all: the Viano special model appeals to all the senses without compromising the Viano's basic values of spaciousness and supreme variability.

The unmistakable look of the Viano X-CLUSIVE is an expression of dynamism and sporty flair. The top-class Viano demonstrates its individuality with a silver-look radiator grille, specially developed front and rear designer bumpers with integral spoilers, designer side skirts, a chromed tailpipe and striking 18-inch light-alloy wheels shod with 245/45 tyres.

The interior of the X-CLUSIVE pampers passengers with an extremely high standard of comfort. Illuminated door sills and soft carpeting welcome the occupants, who are accommodated on six individual seats upholstered in anthracite-coloured leather. As an option, the seats may be specified in exclusive Twin Leather/Alcantara upholstery in a pebble and anthracite finish. As is customary with the Viano, the rear seats can be moved in increments of 25 millimetres, and also rearranged to face each other. Bench seats may be selected as an alternative to the individual seats. The standard-specification multifunction steering wheel, the gearshift lever and sections of the door panelling are likewise trimmed in leather. Elegant trim strips in two different burr-walnut designs add extra emphasis to the feeling of refinement.

The THERMOTRONIC automatic climate control system and self-levelling rear air suspension also contribute to the feel-good factor on board the Viano X-CLUSIVE. PARKTRONIC and a headlamp cleaning system are included in the standard specification to assist the driver. Page 53

### **Engine line-up consists exclusively of six-cylinder powerplants**

The drive unit and chassis at work in the Viano X-CLUSIVE are likewise the epitome of dynamism and comfort. Exceptionally for a vehicle in the Viano class, the model comes exclusively with six-cylinder engines delivering abundant power. First, there is the highly sophisticated V6 CDI, which musters 150 kW/204 hp from its three-litre displacement, and an impressive peak torque of 440 Nm. The alternative to this is a 3.5-litre V6 petrol powerplant generating 190 kW/258 hp and 340 Nm. This engine distinguishes itself by virtue of its remarkable smoothness and harmonious power delivery, and is the very same unit that has already delighted Mercedes-Benz passenger car customers across nearly the full spectrum of model series. It propels the Viano from stationary to 100 km/h in 9.5 seconds. Power is transferred to the wheels by a five-speed automatic transmission, as it is in the diesel variant. Both powerplants are partnered by the latest emission control systems, allowing them to meet EU4 standards. And making economical use of fuel benefits not only the owner's wallet but, above all, the environment too.

Offering the greatest possible level of safety comes as naturally to the Viano X-CLUSIVE as to any Viano model. Thorax sidebags for the driver and front passenger complement the front airbags. The fade-resistance brakes are accompanied by the latest-generation ESP<sup>®</sup> system, including ABS, ASR, Brake Assist (BAS) and electronic brake force distribution (EBD). The scope of the standard equipment has been expanded: in vehicles equipped with a trailer coupling or pre-installation for one, ESP trailer stabilisation is included at no extra cost. This additional function of the Electronic Stability Program (ESP<sup>®</sup>) counteracts any swaying of the vehicle/trailer outfit with strategic application of the front wheel brakes and reduction of the engine torque.

**Special model available now**

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The Viano X-CLUSIVE is based on the high-class AMBIENTE design and equipment line. It is available in two different lengths – 4.75 m and 4.99 m – and comes exclusively in an elegant metallic paint finish.