



Mercedes-Benz

The new Mercedes-Benz CLS

Press Information

Third generation of the original

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Contents

The new Mercedes-Benz CLS: Highlights

Key facts

Short version

The new Mercedes-Benz CLS

Third generation of the original

The new Mercedes-Benz CLS: Interesting facts

Did you know that...

Long version

The new Mercedes-Benz CLS: EDITION 1 special model

Particularly exclusive launch model

The new Mercedes-Benz CLS: Design

Following the traces of its predecessors

**The new Mercedes-Benz CLS under the microscope:
LED Intelligent Light System**

Outstanding light in any situation

The new Mercedes-Benz CLS: Aerodynamics

Numerous detailed improvements

The new Mercedes-Benz CLS: Drive system

Completely new range of engines

The new Mercedes-Benz CLS: Driver assistance systems

Automated driving functions and exemplary safety

The new Mercedes-Benz CLS: ENERGIZING comfort control

Wellness while driving

The new Mercedes-Benz CLS: Body and passive safety

On the safe side

The new Mercedes-Benz CLS: Suspension

A choice of three variants

The new Mercedes-AMG CLS 53

Page 2

Sporty design combined with performance and efficiency

The descriptions and information in this press kit apply to the international model range of Mercedes-Benz and Mercedes-AMG. They may vary from country to country and are subject to change.

Key facts

Design: With the third generation of the CLS, Mercedes-Benz is now building more strongly than ever on the aura and unique character of this trendsetting model: the new model has pure CLS genes with its arching waistline, flat side window lines and low greenhouse. At the same time it is another example of the logical evolution of the Sensual Purity design idiom: sharp edges and lines have been significantly reduced.

Interior The luxurious interior of the CLS Coupe impresses with its clear basic lines, and echoes the sensual, flowing contours of the exterior. For a graceful overall impression, the design makes a wave-like progression from the front to the rear door and opens out at the B-pillar. As a new highlight of the ambient lighting, the illuminated air vents are reminiscent of jet aircraft turbines. For the first time, the CLS Coupe is a five-seater. When required the backrests can be folded down in a 40:20:40 ratio, expanding the luggage compartment.

Standard equipment: The highlights include newly designed LED headlamps and taillamps, 19-inch wheels as standard, a 12.3-inch multimedia system display, new seat design, new steering wheel with Touch Control Buttons and illuminated air vents with new turbine design.

Aerodynamics: Despite larger exterior dimensions and larger standard wheels, the new CLS is among the aerodynamic leaders in its segment. This is the result of numerous detailed improvements made both in advance by computer simulations and in the wind tunnel. Thanks to the Acoustic Comfort package with laminated safety glass all-round, the Coupe has the high aeroacoustic comfort typical of a Mercedes.

New range of engines: The third generation of the Mercedes-Benz CLS is powered by a new, systematically electrified inline six-cylinder gasoline engines with EQ boost (integrated starter/generator) and a 48-V on-board electrical system.

Mercedes-AMG CLS 53: This model combines sporty design with powerful performance and high efficiency. Its centerpiece is a new, electrified 3.0-liter engine featuring turbocharging and an electric auxiliary compressor.

New driver assistance systems with extended functions: With the Driver Assistance package, the new CLS comes with the latest driver assistance systems with route-based support for the driver. Active Distance Assist DISTRONIC and Active Steering Assist now provide even more comfortable support for the driver to keep a safe distance and steer. The speed is now adjusted automatically ahead of bends, junctions or roundabouts.

Page 4

ENERGIZING Comfort: This networks various on-board comfort systems, allowing a specific wellness setup in line with the driver's wishes. The well-being and performance of the driver and passengers can be improved as a result. With ENERGIZING Comfort, specific functions of the air conditioning system (including fragrance) and seats (heating, ventilation, massage), the surface heating and lighting/musical moods are brought into play.

Control and display concept: On request, the interior is characterized by a new Widescreen Cockpit with brilliant, high-resolution displays. The fully digital cockpit offers the three visually very different styles "Classic," "Sport" and "Progressive." As new features, Touch Control Buttons are set in the steering wheel, and DISTRONIC and cruise control are now operated via controls directly on the steering wheel. Voice control has been extended to include vehicle functions such as climate control and seat heating/ventilation, interior lights, fragrance/ionization, massage function in the seats and the head-up display.

Third generation of the original

Stuttgart/Barcelona. The new CLS pioneers the new design idiom of Mercedes-Benz, which is recognizable by its clear contours and reduced lines. Its character is marked by a grille contour that widens towards the base and a forward-slanting front section. Other features include wide, flat headlamps and two-section taillamps. At the same time the design reflects the timeless aura of the first CLS, which founded a new segment and quickly became a design icon. All CLS models are equipped with new in-line six-cylinder gasoline engines. Like its predecessors, the third CLS generation exudes self-assured sportiness in exemplary style. The Coupe is a highly emotive vehicle offering impressive long-distance and acoustic comfort coupled with thrilling innovations.

In 2003, with the CLS, Mercedes-Benz created a new vehicle segment that for the first time combined the elegance and dynamism of a coupe with the comfort and functionality of a sedan. With the third generation of the CLS, is now building stronger than ever on the aura and unique character of this trendsetting model: the new model has pure CLS genes with its arching waistline, flat side window lines and low greenhouse. At the same time it is another example of the logical evolution of the Sensual Purity design idiom: sharp edges and lines have been significantly reduced. It blends seamlessly into the current Mercedes-Benz coupe family with numerous design features.

The CLS is not only decidedly sporty, but also comfortable. The AIR BODY CONTROL suspension, ENERGIZING Comfort and the very latest infotainment generation with In-Car-Office, smartphone connectivity via Mercedes-Benz Link and wireless charging accentuate this. The touchpad with controller in the center console gives haptic and acoustic feedback when operating the numerous convenience functions and settings.

The standard appointments of the CLS are very extensive: The highlights include LED headlamps and taillamps, 19-inch wheels, a 12.3-inch multimedia system display and illuminated air vents in a new turbine design.

"The new CLS is a design icon as the archetype of the four-door coupe. In line with our design philosophy of sensual purity, we have reduced its DNA in an extremely puristic way and at the same time emotionally charged it with elegant beauty," says Gorden Wagener, Chief Design Officer Daimler AG.

Striking front-end features include the diamond grille typical of Mercedes-Benz coupes, with a single louver. The silhouette of the grille widens towards the base, adopting the contours of the grille on the Mercedes-AMG GT. The bonnet is completely surrounded by body surfaces. The very flat and wide headlamps with inward-slanting flanks dynamically follow the contour of the grille.

The side design is characterized by the high, arching waistline and the sporty, low greenhouse with frameless side windows. The forward-slanting front end is reminiscent of a shark's nose, and appears longer thanks to the fully inset bonnet.

Also typical of the CLS is the muscular rear shoulder line which blends smoothly into the flat rear end. Characteristic Mercedes coupe features include the two-section taillamps, reflectors positioned in the rear bumper, location of the registration plate in the bumper and the Mercedes star on the boot lid. Depending on specification, this houses an extendable reversing camera.

Like the headlamps, the LED taillamps with edgelight backlighting have a crystalline appearance and create a three-dimensional effect. Their low positioning accentuates the width of the vehicle.

Interior: consistent color scheme, widescreen cockpit

The luxurious interior of the CLS Coupe impresses with its clear basic lines, and echoes the sensual, flowing contours of the exterior. The high-grade choice of materials shows a very high level of finish.

The sporty, width-accentuated cockpit and color combination creates an impression of particularly generous spaciousness. For a flowing overall impression, the wave-like course of the interior design extends from the front to the rear doors, opening up at the B-pillars.

As a new highlight of the ambient lighting, the illuminated air vents are reminiscent of jet aircraft turbines. The sporty impression is also reinforced by the hand-finished appearance of the seats. The high-resolution widescreen cockpit is made up of two 12.3-inch displays arranged beneath a shared, continuous glass cover. Thanks to its surface trim, the center console with open-pored or high-gloss wood appears to be free-floating.

In the fully digital cockpit, the driver is able to freely configure the information content according to their needs and the driving situation. Three different styles can be selected depending on preference, mood or to suit the interior appointments. The Classic and Sport styles have a basic structure with two tubes, while the Progressive style has one central, tubular instrument.

The ambient lighting with 64 colors, ten color themes and two effects emphasizes the modern, lounge-like atmosphere. The temperature settings are visualized with the help of the illuminated air vents.

The seats were designed exclusively for this model series. Depending on the interior, they feature high-quality piping or transverse seams. The outer seats in the rear have the same appearance as the front seats, creating a sporty single-seat impression, although the CLS Coupe is in fact a five-seater for the first time. When required the backrests optionally can be folded down in a 40:20:40 ratio, expanding the luggage compartment.

Wellness on long-distance journeys: ENERGIZING Comfort

ENERGIZING Comfort (optionally available) links various comfort systems in the vehicle. It systematically uses the functions of the climate control system (including fragrance) and the seats (heater, ventilation, massage), the surface and steering wheel heating as well as lighting and musical atmospheres, and allows a specific wellness set-up according to customer needs. This has positive effects on wellbeing and driver performance.

These six programs can be selected:

- Refresh (Freshness)
- Warmth
- Vitality
- Joy
- Comfort

- Training (three training modes – muscle relaxation, muscle activation and balance – each with several exercises).

Intelligent Drive: Technology from the S-Class

The new CLS generation takes its lead from the new S-Class in many respects. The CLS is equipped with the latest generation of driver assistance systems, with route-based driver support provided by the Driver Assistance Package.

The range of driver assistance and safety systems features a modular design and as standard includes Active Brake Assist and the occupant protection system PRE-SAFE®. New and also part of the standard specification is PRE-SAFE® Sound, which prepares human hearing for the anticipated accident noise when there is a risk of a collision.

The optional **Driver Assistance Package** consists of Active Distance Assist DISTRONIC, Active Steering Assist, Active Emergency Stop Assist, Active Lane Change Assist, Active Speed Limit Assist, Route-Based Speed Adaptation, Active Brake Assist with cross-traffic function, Evasive Steering Assist, Active Blind Spot Assist, Active Lane Keeping Assist and PRE-SAFE® Impulse Side. Active Distance Assist DISTRONIC and Active Steering Assist now provide even more comfortable support for the driver to keep a safe distance and steer. The speed is now adjusted automatically ahead of bends, junctions and roundabouts. Active Lane Changing Assist has also been significantly improved (country-specific differences are possible for individual functions). When the driver wishes to change lanes on multi-lane roads (recognized by the navigation system) at speeds from 50 to 111 mph, it is now sufficient to nudge the indicator stalk. In addition, the Driver Assistance Package includes PRE-SAFE® Impulse Side, which can brace the front occupants for a side impact by nudging them sideways to reduce the risk of injury in a collision.

Thanks to improved camera and radar systems, the new CLS also has an even better view of the surrounding traffic. For the first time it also makes use of map and navigation data to calculate vehicle behavior.

The "Assistance Graphics" menu of the instrument cluster shows the driver at a glance which assistance functions have been selected, and to what situations the systems are currently responding. Unmistakable icons provide the driver with information on-screen as well as partly in the head-up display. All functions are now controlled from the steering wheel.

The third generation of the Mercedes-Benz CLS is powered by a new inline six-cylinder engine. The new, systematically electrified in-line six-cylinder with EQ Boost (integrated starter/generator) and a 48-V on-board electrical system powers the CLS 450 and CLS 450 4MATIC. Its performance data: 362 hp and 369 lb-ft plus a further 184 lb-ft of torque and 21 hp available via EQ Boost over short periods. The integrated electric motor known as EQ Boost assists the combustion engine, for example, when accelerating, makes driving without the combustion engine possible ("gliding") and supplies the battery with power by means of high-efficiency recuperation. By doing so, it makes fuel savings possible that were previously the exclusive domain of high-voltage hybrid technology. All in all, the new in-line six-cylinder engine delivers the performance of an eight-cylinder engine with significantly lower consumption.

Performance and efficiency: Mercedes-AMG CLS 53

The new Mercedes-AMG CLS 53 combines sporty design with powerful performance and high efficiency. Its centerpiece is a new, electrified 3.0-litre engine featuring turbocharging and an electric auxiliary compressor. The 6-cylinder in-line engine generates 429 hp and delivers maximum torque of 384 lb-ft. Its EQ Boost starter-alternator temporarily provides an additional 22 hp of output plus 184 lb-ft of torque, and also feeds the 48-V on-board electrical system. Other technical highlights include the AMG SPEEDSHIFT TCT 9G transmission and the fully variable all-wheel drive system AMG Performance 4MATIC+.

The new CLS models:

	Mercedes-Benz CLS 450 / 450 4MATIC	Mercedes-AMG CLS 53
Number of cylinders/ arrangement	6/in-line	6/in-line
Displacement (cc)	2,999	2,999
Rated output (hp)	362	429
Rated torque (lb-ft)	369	384
Extra output from EQ Boost (hp) / (lb-ft)	21 / 184	21 / 184
Acceleration 0-60 mph (s)	5.1 / 4.8	4.4 est.

Did you know that...

...for several years, the first CLS generation launched in October 2004 was the only four-door coupe in its class? With the CLS, Mercedes-Benz created a new vehicle class that for the first time, combining the elegance and dynamism of a coupe with the comfort and functionality of a sedan. With its intriguing design and refined sportiness, the new generation presented in 2010 also benefitted from the fact that Mercedes-Benz had a one-generation advantage over its competitors in the four-door coupe segment.

...the CLS has several times been an innovation platform for lighting technology? In 2010 the Coupe was the world's first series-production car whose all-LED headlamps incorporated all the adaptive light functions of regular xenon systems. And in 2014 it was in the CLS that Mercedes-Benz first used the new MULTIBEAM LED headlamp technology.

...the THERMOTRONIC automatic climate control (optional equipment) works together with navigation system? When the GPS signal recognizes a tunnel entrance, the system automatically switches to air recirculation mode. In addition, a sensor for air quality and harmful gases constantly monitors the quality of the outside air being drawn in. If necessary it also switches to air recirculation mode.

...the head-up display (optional equipment) features a light sensor to adjust the brightness? The sensor is located in the area of the upper roof edge. It adjusts the brightness of the display to the ambient light conditions. This also makes it easily legible on sunny days or at night.

...the Active Multicontour Seats for the driver and front passenger (optional equipment) is recommended by Aktion Gesunder Rücken (AGR), a German campaign for spinal health? The active multicontour seats with a vehicle dynamics function and ENERGIZING massage function have inflatable air chambers and luxury head restraints to provide maximum seating comfort and lateral support. Eight massage programs make for a feeling of wellbeing.

...the tiny muscle in the human ear that contracts as a reflex action when a loud noise is perceived is called the stapedius muscle? With PRE-SAFE® Sound, Mercedes-Benz makes use of this natural reflex to prepare the occupants' ears for the loud noise normally associated with an impending

accident, thus protecting the hearing. As accidents can generate impact noises to which some people are very sensitive, PRE-SAFE® Sound causes the sound system to emit a brief rushing noise when an impending collision is detected. This can initiate the stapedius reflex.

Page 11

...a fully electric trailer coupling is available for the CLS? When it is not in use, the trailer coupling can be electrically pivoted below the rear bumper. To hitch up a car trailer or mount a bicycle rack, it is simply swung out using the electric controls and automatically locked in its operating position. This trailer coupling is also available in combination with the AMG line.

...the VIP function is part of the Burmester® high-end 3D surround sound system? It enables the sound to be optimized for a specific seat that can be selected using the Settings menu. The sound system delivers a sound quality matching that of a luxury domestic sound system. Speakers in the roof liner provide a 3D listening experience.

...the CLS is available in more than 180 countries? The variety of language versions for the owner's manual is correspondingly wide. These include Indonesian, Vietnamese, two French versions (Europe and South America) and three English versions (Europe/world, USA/Canada and South America).

...the power closing function first became available for the CLS? The convenient power closing function ensures a gentle and almost silent closing procedure. After initial engagement, the front and rear doors are drawn into their locks by servo motors.

...at the Sindelfingen plant where the CLS is produced, electric power and steam are generated by an in-house combined heating and power plant? Thanks to cogeneration, 25 % less fuel is required compared to separate generation.

...like all Mercedes-Benz passenger cars, the CLS was developed in accordance with the stringent requirements for the quality seal of the European Centre for Allergy Research Foundation (ECARF)? The ECARF Seal of Quality is used by ECARF to designate products that have been scientifically tested and proven to be suitable for allergy sufferers. The requirements are extensive: numerous components from each equipment variant of a vehicle have to be tested for inhaled allergens, for example. In addition, the pollen filter is tested for correct functioning in both the new and used condition.

...a total of 131 components of the CLS, e.g. underfloor paneling and cable ducts, are made from high-quality recycled plastics? These have a total weight of approximately 116 lbs.

Page 12

...a recycled material composed of reprocessed starter batteries and bumper paneling is used for the wheel arch linings of the CLS? The objective is to obtain secondary raw materials from vehicle-related waste flows wherever possible, so as to achieve closed loops.

...in the basic model of the CLS, 78 components with a total weight of approximately 67 lbs. are made using natural materials? These include established natural materials such as flax and cellulose fibers, wool, cotton and natural rubber, which are used in the interior.

Particularly exclusive launch model

The exclusivity of the CLS can be heightened even further with the Edition 1, which will be available for around one year after the market launch. This special model has numerous luxurious features as standard which are only available for the Edition 1. These include the COPPER ART interior concept with seats in *designo* Black Pearl Nappa Leather with center sections in a diamond design and copper-colored accents, copper-colored contrasting topstitching on the center console, seats, armrests, dashboard and door panels, and a unique diamond grille with matte chrome pins and chrome inserts with a copper-colored shimmer.

The exterior is based on the AMG Line. Special features include MULTIBEAM LED headlamps as standard and 20-inch AMG multi-spoke light-alloy wheels painted in black with a high-sheen rim flange (19-inch 5-spoke wheels on CLS 450 4MATIC). The special model is also recognizable by the "Edition 1" lettering on the front wings.

Highlights of the interior, which is likewise based on AMG Line, additionally include:

- dashboard support lined in black nappa leather
- center console and dashboard support trim in black open-pored ash wood
- IWC analogue clock with exclusive dial face
- Vehicle key in high-gloss black with high-sheen chrome surround
- Ambience lighting incl. illuminated air vents in 64 colors, with ten color themes and two effects
- Mirror package
- Memory package
- Rear seat backrest foldable in a 40:20:40 ratio
- Floor mats with "Edition 1" badge and copper-colored piping
- Chrome "Edition 1" lettering on the center console and "Edition 1" display on the welcome screen.

Following the traces of its predecessors

In terms of design, the new CLS takes its lead from the first model generation with the arched beltline, the sleek line of the side windows and the low greenhouse. At the same time, it reflects the systematic evolution of the Mercedes-Benz design idiom, with sparing use of lines. Among the highlights of the high-quality interior are the consistent color scheme extending into the rear, the illuminated air vents and the hand-crafted character of the seats, which feature elaborate piping or transverse seams depending on the specific version. The high-resolution Widescreen Cockpit, featuring two display screens under a single, continuous glass cover, is equipped as standard.

With the CLS in 2003, Mercedes-Benz created a new vehicle class that for the first time combined the elegance and dynamism of a coupe with the comfort and functionality of a sedan. Thus, a style icon was born. With the third generation of the CLS, Mercedes-Benz is now building more strongly than ever on the design idiom of this trendsetting model: the new model has pure CLS genes with its arching beltline, flat side window lines and low greenhouse. At the same time the CLS is another example of the logical evolution of the Sensual Purity design idiom: sharp edges and lines have been significantly reduced. It blends seamlessly into the current Mercedes-Benz coupe family with numerous design features.

Striking front-end features include the diamond grille typical of Mercedes-Benz coupes, with a single louvre. The silhouette of the radiator grille widens towards the base, resembling the contours of the grille on the Mercedes-AMG GT. The hood is completely surrounded by body surfaces. The very flat and wide headlamps with inward-slanting flanks dynamically follow the contour of the grille.

Newly designed MULTIBEAM LED headlamps and taillamps are equipped as standard. With their high-tech look and three-dimensional depth, they stand in contrast to the clean, puristic body design. The three-dimensional effect is partly created by the offset optics of the daytime driving lights, which make the reflectors of the low and high beam headlamps appear to be in the background. The large center air inlet, simulated air inlets at both corners and the

decorative clasp at the lower end of the bumper emphasize the width of the vehicle.

Page 15

The side design is characterized by the high, arching waistline and the sporty, low greenhouse with frameless side windows. The forward-slanting front end is reminiscent of a shark's nose, and appears longer thanks to the fully inset hood. The contours follow the design philosophy of sensual purity: lines and edges are greatly reduced and the surfaces are generously arched.

The high beltline and its countering balance line harmoniously round off the overall appearance of the side wall. The low, frameless side windows and the descending roof line convey dynamism. The free-standing exterior mirrors have contrasting areas in high-gloss black.

Also typical of the CLS is the muscular rear shoulder line which blends smoothly into the flat rear end. Characteristic Mercedes coupe features include the two-section taillamps, reflectors positioned in the rear bumper, location of the registration plate in the bumper and the Mercedes star at the center of the trunk lid that houses the extendable rearview camera.

Like the headlamps, the LED taillamps with edgelight backlighting have a crystalline appearance and create a three-dimensional effect. Their low positioning accentuates the width of the vehicle. This is reinforced by the downward repositioning of the white areas in the taillamp clusters (reversing light and indicator).

Interior: Widescreen cockpit, illuminated air vents and exclusive seats

The luxurious interior of the CLS Coupe impresses with its clear basic lines, and echoes the sensual, flowing contours of the exterior. The high-grade choice of materials shows a very high level of finish.

The sporty, width-accentuated cockpit and color combination creates an impression of particularly generous spaciousness. For a graceful overall impression, the design makes a wave-like progression from the front to the rear door and opens out at the B-pillar. The center console with open-pored or high-gloss wood appears to be free-floating thanks to its surface trim.

The Widescreen cockpit merges two 12.3-inch displays beneath a shared, continuous glass cover.

In the fully digital cockpit, the driver is able to freely configure the information content according to need and the driving situation. Three different styles can be selected depending on preference, mood or to suit the interior appointments. The Classic and Sport styles have a basic structure with two tubes, while the Progressive style has one central, tubular instrument.

Page 16

The extraordinary ambience lighting can be individually set in 64 colors, and composes different colors into color themes. When entering, the CLS also welcomes its occupants with a special lighting effect.

For the first time, the ambient lighting also includes air vents reminiscent of aircraft engine turbines. When the temperature setting of the air conditioning system is changed, it briefly changes color to show whether the temperature is being made warmer (red) or cooler (blue).

The seats were designed exclusively for this model series. Depending on the interior, they feature high-quality piping or transverse seams. New colors in the interior are Macchiato Beige/Magma Grey, Magma Grey/Espresso Brown and Marsala Brown/Espresso Brown (for leather upholstery) and Bengal Red/Black (for AMG line nappa leather upholstery).

Outstanding light in any situation

On 2014 the second-generation CLS was the first automobile to feature MULTIBEAM LED headlamps. The LED Intelligent Light System is now optionally available with advanced LED headlamps and Ultra Wide Beam high beams. The Ultra Wide Beams produce light at an increased width for maximum illumination of the road and surround area. For the driver, this means a clear improvement of the already great lighting performance of the LED Intelligent Light System. Adaptive Highbeam Assist is also part of the LED Intelligent Light System and allows drivers to drive with activated main beams without dazzling other road users. When there are oncoming vehicles or vehicles in front, the LEDs of the high beam modules are switched off. The other areas of the road continue to be illuminated with the mainbeam.

Numerous detailed improvements

Despite larger exterior dimensions and larger standard wheels, the new CLS is among the aerodynamic leaders in its segment as a result of numerous detailed improvements made both in advance by computer simulations and in the wind tunnel.

A two-section AIRPANEL is used for all engine variants of the CLS. This louver system behind the radiator grille opens its adjustable louvers depending on the cooling requirement. There is an additional louver system in the air inlet below the registration plate, which further improves system performance.

Further detailed measures include:

- extensive underfloor paneling including the engine compartment
- aerodynamic design of the mesh inserts and corners of the pockets in the front bumper
- optimized side sill panels
- wheel spoilers at front and rear
- exterior mirrors with an optimized mirror base
- Aerodynamically optimized wheels: 18'-inch Aero wheel with an attractive bicolor finish

The aerodynamic improvements for the AMG line models were carried out by the experts at Mercedes-AMG. The modifications include e.g. air curtains in the front bumper. The Mercedes-AMG GT R already has such innovative air ducts. How they work: the airstream flows through the two side inlets in the front apron, is accelerated and exits from the side "gills" ahead of the wheel arches, bypassing the wheels. This can reduce the flow losses caused by wheel rotation.

The interior of the CLS is very quiet even at high speeds. This is thanks to numerous aeroacoustic measures, for example:

- a door and window sealing concept that effectively suppresses wind noise
- effective coordination of the exterior mirrors and A-pillars for improved positioning and contours to minimize unavoidable wind noise
- improvements to the main floor to keep low-frequency noises low.

Completely new range of engines

The third generation of the Mercedes-Benz CLS is powered by completely new engines.

The **Mercedes-Benz CLS 450 and CLS 450 4MATIC** are powered by a systematically electrified six-cylinder in-line gasoline engine. The integrated starter/alternator (ISG) is responsible for hybrid functions such as EQ Boost or energy recuperation, while allowing fuel savings that were previously reserved for high-voltage hybrid technology.

Systematic electrification dispenses with the need for a belt drive for ancillary components at the front of the engine, which reduces its overall length. The slim design, together with the physical separation of intake/exhaust, creates space for near-engine exhaust after treatment. The 48-volt on-board power supply serves not only high power consumers such as the water pump and air-conditioning compressor, but also the Integrated Starter Generator (ISG), which also supplies energy to the battery by means of highly efficient energy recuperation.

Nine gears for comfortable and efficient gear shifts

In all variants of the new CLS, power is transmitted by the 9G-TRONIC automatic transmission. The broad ratio spread of gears one to nine allows a clearly perceptible reduction in engine speed and is a decisive factor behind the high level of energy efficiency and ride comfort. The high overall efficiency is reflected in the fuel economy. Shortened shift and response times ensure optimum spontaneity combined with outstandingly smooth gear changes. Particularly in manual mode and S mode, 9G-TRONIC responds immediately and enhances driving pleasure.

The particularly good gear shifting comfort of the 9-speed automatic transmission is the result of extensive measures. These include the novel direct control system which enables short, barely perceptible gear changes. The combination of twin-turbine torsional damper and centrifugal pendulum technology in the torque converter ensures outstanding drive comfort. An additional, electric transmission oil pump is activated in start/stop operation,

ensuring a basic supply to the control elements and actuators. The time delay between the desire to move off and the vehicle's actual movement is reduced by the electric transmission oil pump.

In driving mode ECO, the gliding function assists the driver's active fuel economy measures. When the driver's foot leaves the accelerator, the combustion engine is decoupled from the drive system and runs at idling speed. The vehicle rolls for a measurably longer distance than when on the overrun. When the accelerator is depressed again, the connection between the engine and drive system is re-established.

In the CLS 450 and CLS 450 4MATIC, the internal combustion engine is switched off depending on the driving situation and automatically recuperates with the electric motor. The battery is charged during the recuperation process.

DYNAMIC SELECT has the following drive settings:

Mode	Abbreviation	Description
Eco	E	The aim is the lowest possible fuel consumption with reduced vehicle dynamics (accelerator pedal curve, maximum torque, transmission mode, gliding)
Comfort	C	The aim is a balanced drive configuration and low fuel consumption
Sport	S	Taut engine/transmission configuration (accelerator pedal curve, transmission mode)
Sport Plus	S+	The aim is maximum dynamism and engine/transmission response
Manual	M _P	Manual transmission mode (permanent)

4MATIC all-wheel drive: traction even in difficult road conditions

The CLS 450 4MATIC is equipped with 4MATIC permanent all-wheel drive and benefits from improved traction and driving stability, especially in difficult road conditions. The 4MATIC of the Coupe has a sporty configuration, with an all-wheel torque distribution of 31% to the front and 69% to the rear. The combination of the ESP[®] driving dynamics control system with the 4ETS electronic traction system makes regular differential locks superfluous. This saves weight and noticeably improves handling safety as well as ride comfort.

Automated driving functions and exemplary safety

The new CLS generation takes its lead from the new S-Class in many respects: With the Driver Assistance Package, the new CLS comes with the latest driving assistance systems with route-based support for the driver. A number of assistance functions are already on board as standard.

The CLS keeps an even closer eye on the traffic situation: improved radar systems now allow it to scan up further ahead, while the stereo multipurpose camera has an increased range as well. The four-door Coupe also makes substantially more intensive use of map and navigation data. This means that Active Distance Assist DISTRONIC is able to assist the driver in many situations based on the route, and conveniently adjust the vehicle speed.

The driver is also able to see at a glance which assistance functions have been selected, and to which situations the systems are reacting at present. Clearly understood icons – a steering wheel with hands on both sides – give information both on the screen and partly in the head-up display. All functions are now controlled from the steering wheel.

Active safety

Car-to-X Communication: Information concerning hazardous situations which a vehicle on the road has detected is made available to all other Car-to-X users to give drivers an early warning. As with Live Traffic Information, reports transmitted by Car-to-X are shown on the COMAND map display. Depending on the situation, a warning by voice output can be given when approaching a hazard.

Driver Assistance package: numerous assistance systems usefully combined

The assistance and safety systems are grouped together in the optionally available Driver Assistance package. The individual functions in detail:

Active Distance Assist DISTRONIC: the speed preset in DISTRONIC is predictively reduced according to the route ahead of bends, junctions,

roundabouts or toll booths, then increased back up. When a route has been defined using the navigation system, the vehicle responds accordingly: if the car is in the slow lane, it is decelerated when approaching the desired motorway exit. The same applies to junctions where the navigation route prescribes a turn-off, or ahead of which the driver activates the direction indicators.

The reduction in speed is in varying degrees, depending on the selected transmission mode (ECO, COMFORT or SPORT). In ECO mode, the cornering speed is configured to harmonize with Active Steer Assist. This means that automated driving for longer periods is also a reality on country roads. On highways and motorways, Active Distance Control DISTRONIC controls the distance from the vehicle ahead within a speed range from 0 to 130 mph, and keeps the car on track. Coasting characteristics, e.g. on downhill gradients, can now also be taken into account.

Active Lane Change Assist: When the driver wishes to change lanes on multi-lane roads (recognized by the navigation system) at speeds from approximately 50 mph to 110 mph, it is now sufficient to nudge the indicator stalk. Within the next ten seconds, the sensor system checks together with the driver whether the next lane is clear in front of, alongside and behind the vehicle, also taking into account the speed of any other vehicles. If there is no other vehicle within the relevant safety zone, the lane-change is initiated and the driver is supported. The initiated lane change is indicated in the instrument cluster and in the head-up display. The system is available in certain countries, depending on certifiability.

Active Speed Limit Assist: In conjunction with COMAND, Active Speed Limit Assist - an engageable subfunction of Traffic Sign Assist - is also able to recognize sign gantries and road works signs. Known limits, such as 31 mph in built-up areas or 62 mph on country roads, are also adopted from the navigation system. Active Distance Assist DISTRONIC adapts the vehicle's speed automatically to the recognized speed limits. In certain cases, the speed can be adapted in anticipatory mode on the basis of map data. On roads without speed limits, such as stretches on German motorways, the recommended speed - in this case 80 mph - is adopted as the set speed. This speed can be adjusted by the driver. The desired maximum speed is always adopted in the course of the journey when the speed limit is cancelled. It remains preset until the engine is switched off.

Active Emergency Stop Assist: Active Emergency Stop Assist brakes the vehicle to a standstill in its lane if it detects that the driver is no longer actively driving the vehicle while it is on the move with Active Steering Assist switched on. If there is no steering wheel movement over a predefined period, the system gives the driver visual and acoustic prompts to place his/her hands on the wheel. If the driver fails to respond after repeated visual and audible prompts by moving the steering wheel, accelerating, braking or pressing a Touch Control button on the steering wheel, the car will be slowed down in the identified lane until it comes to a standstill. At speeds below approx. 37 mph the following traffic is warned by means of hazard warning lamps. When the vehicle comes to a standstill, the parking brake is engaged automatically and the Mercedes-Benz emergency call system is activated. The vehicle is also unlocked, to allow first responders access to the interior. The functions are aborted as soon as the driver takes control of the vehicle again.

Active Brake Assist: Included as standard, Active Brake Assist with cross-traffic function is able to help the driver avoid impending collisions with stationary, moving or crossing vehicles and pedestrians ahead if the driver fails to take any action to defuse the dangerous situation. This assistance takes the form of

- a distance warning from a warning lamp in the instrument cluster, if the distance from a vehicle in front is inadequate,
- an additional acoustic warning if the danger of collision is identified,
- automatic emergency braking for moving, stationary or crossing (in conjunction with Driving Assistance package) vehicles ahead,
- automatic emergency braking for pedestrians and cyclists,
- braking assistance appropriate to the given situation as soon as the driver applies the brakes.

Evasive Steering Assist: Evasive Steering Assist can support the driver in taking evasive action when pedestrians are detected in the danger zone in front of the vehicle and the driver initiates such action. The system then applies additional steering torque in the direction in which the driver is performing an evasive maneuver. This helps the driver to evade the pedestrian in a controlled manner and to stabilize the vehicle on its evasive course.

Active Lane Keeping Assist: This system is able to warn the driver by means of pulsed vibrations at the steering wheel when the vehicle is unintentionally drifting out of its lane at speeds between 37 and 124 mph. If the vehicle passes over a continuous line, it can pull the vehicle back into lane by applying the

brakes on one side. In the case of a broken line, such intervention takes place only when there is a danger of collision with a vehicle in the next lane (including danger from oncoming traffic).

Page 24

Active Blind Spot Assist: In the speed range from approx. 6 to 124 mph, this system is able to provide the driver with a visual alert plus an audible alarm when a turn indicator is actuated, to warn of a danger of side collisions with other vehicles, including e.g. bicycles. At speeds above 18 mph automatic braking on one side of the vehicle can additionally be applied to help avoid a side collision at the last moment.

Car-to-X communication: Information concerning hazardous situations which a vehicle on the road has detected is made available to all other Car-to-X users to give drivers an early warning. As with Live Traffic Information, reports transmitted by Car-to-X are shown on the COMAND Online map display. Depending on the situation, a warning by voice output can be given when approaching a hazard.

Wellness while driving

ENERGIZING Comfort (optionally available) links various comfort systems in the vehicle. It systematically uses the functions of the climate control system (including fragrance) and the seats (heater, ventilation, massage), the wall heating as well as lighting and musical atmospheres, and enables a specific wellness set-up tailored to the mood and need of the customer.

With ENERGIZING Comfort, the vehicle is able to enhance the well-being and performance of its occupants with the help of networked comfort systems. Rather than just sporadically using a few (favorite) systems, customers with ENERGIZING Comfort are able to benefit even more from the multi-faceted comfort features in their CLS.

These programs can be selected:

- Refresh/Freshness
- Warmth
- Vitality
- Joy
- Comfort
- Training (three training modes – muscle relaxation, muscle activation and balance – each with several exercises).

The programs all run for ten minutes. They are visualized on the head unit with color graphics, and backed by suitable music. Five songs are already stored in the program. The main function of the "Joy" program is massage, for example. This is accompanied by medium-fast music, with a repertoire including "Brand new day" by Nils Bergholz. If personal music selections are available, e.g. via the Media Interface, the system analyzes them in the background and assigns them to a program based on the beats per minute. Individual functions of the programs can be deactivated.

ENERGIZING Comfort also offers three training modes – muscle relaxation, muscle activation and balance – each with several exercises. The training can also be carried out while on the move. In this case the user is given an audible safety warning to concentrate on the road.

ENERGIZING Comfort also incorporates ambience lighting, which is harmoniously tailored to each of the individual screen designs. The light stages the interior like a work of art by composing color worlds from different colors.

Page 26

On the safe side

The body shell of the new CLS provides an innovative basis for reduced weight and outstanding rigidity together with excellent noise and vibration comfort and a high level of crash safety. New PRE-SAFE® systems such as PRE-SAFE® PLUS, PRE-SAFE® Impulse Side and PRE-SAFE® Sound, as well as comprehensive restraint systems, protect the occupants in the event of an accident.

The CLS continues the aluminum hybrid construction principle that has already proved so successful in the current S, E and C-Class. The aluminum content has been significantly increased even further compared to the preceding model series. In addition, numerous components of the body structure are of hot-formed and ultra high-strength steel.

Among the traditional features of the CLS are frameless side windows, which accentuate its coupe character. Thanks to a new sealing concept, it has been possible to realize the optional Acoustic Comfort package together with laminated safety glass.

The front wings, bonnet, boot lid and large sections of the front and rear ends are made of sheet or cast aluminum. For example, to increase the local introduction stiffness, the damper brackets at the front are no longer of the usual sheet steel, but of cast aluminum. It was possible to integrate and merge several parts into a single die-cast part. These would be made up of several steel components in conventional designs.

Other design details include larger cross-sections as well as precisely calculated stabilizing beads in the floor and bulkhead. High-strength adhesives are used extensively to firmly bond the parts, which, in turn, helps increase the stiffness of the body shell.

The body is configured to offer a high level of crash safety. The Coupe not only meets all current national and international laws, but also all rating requirements as well as the more stringent internal Mercedes-Benz safety requirements, which are based on what actually happens in real-life accidents.

A high-strength safety passenger compartment forms the core of this concept. It consists primarily of high-strength and ultra-high-strength sheet steel and sheet metal with graduated wall thicknesses designed to withstand specific local stresses. Many segments consist of hot-formed steels, which become very hard as a result of this production process.

The extremely rigid safety cell is surrounded by specifically designed and field-tested deformation zones, which ensure maximum safety for the occupants by virtue of optimized force paths and a combination of die-cast aluminum components and ultra high-strength materials.

The active bonnet of the CLS is an important contribution to pedestrian safety. The technical basis is a comprehensive sensor system in conjunction with intelligent algorithms in the airbag control unit, which decides when to trigger. After the pyrotechnical actuators have fired, the bonnet lifts by a noticeable amount at the hinge in fractions of a second to create additional space between the bonnet and the components in the engine compartment.

Passive safety: Intelligent systems

For years Mercedes-Benz has been protecting car occupants with its PRE-SAFE® concept in a host of accident situations. Even before an impending crash, various measures bring them into a position in which they are prepared as well as possible for the impact. Based on findings from its own accident research, Mercedes-Benz has continuously developed this system further and expanded it into all-round monitoring system. This means that for the first time, the new CLS is equipped with PRE-SAFE® Impulse Side (optional as part of the Driving Assistance package Plus). Together with the familiar PRE-SAFE® protection concepts for frontal and rear collisions, it allows a kind of virtual crumple zone that extends all around the vehicle - PRE-SAFE® 360°.

Protection in a rear-end collision: PRE-SAFE® PLUS

If the danger of a rear-end collision is recognized, PRE-SAFE® PLUS (optional as part of the Driving Assistance package) activates the rear hazard warning lights at a high frequency to warn the driver behind. It can also initiate the preventive PRE-SAFE® occupant protection measures, e.g. the reversible belt tensioners, to fix the driver and front passenger in place and better prepare them for an impact.

If the vehicle is stationary, PRE-SAFE® PLUS can lock the brakes in a collision to reduce the forward jolt. This can considerably reduce the risk of whiplash injuries.

Page 29

Side impact protection: PRE-SAFE® Impulse Side

As only a limited crumple zone is available in the case of a side impact, and even before the crash, PRE-SAFE® Impulse Side can move the affected driver or front passenger as far as possible away from the acute danger zone as soon as the system detects that a side collision is immediately imminent. For this purpose, air chambers in the side bolsters of the front seat backrest are inflated in fractions of a second. Thus increasing the distance between occupant and door. At the same time, the impulse is imparted moderately to the occupant, lessening the forces acting on them during the side impact. This can reduce the forces to which the occupant's rib cage is subjected during a side collision.

Hearing protection: PRE-SAFE® Sound

With PRE-SAFE® Sound, Mercedes-Benz makes use of a natural reflex to prepare the occupants' ears for the loud noise normally associated with an accident. The system is based on the fact that the so-called stapedius muscle in our ears reacts to loud noises by contracting in a reflex action. The contraction of this tiny muscle briefly changes the link between the eardrum and the inner ear, providing greater protection against high sound pressures.

Mercedes-Benz uses the biomechanical hearing protection of this so-called stapedius reflex for PRE-SAFE® Sound, which emits a brief rushing sound when the danger of a collision is detected. This lessens the risk of hearing discomfort or damage if an impact occurs.

Restraint systems: Well-equipped if the worst happens

Three-point seat belts with pyrotechnical belt tensioners and belt force limiters are installed for the driver, front passenger and passengers on the outer rear seats. The center seat of the second row is equipped with a standard 3-point belt system.

In addition, a host of airbags provides occupant protection in an accident. These include:

Page 30

- driver and front passenger airbags
- Kneebag for the driver to protect the knees and stabilize the upper body, which positively influences occupant movement in an accident.
- a windowbag in the roof area between A, B and C-pillars for the head area of driver, front passenger and passengers in the outer rear seats
- Combined thorax/pelvis sidebags for driver and front passenger, which are able to provide additional protection in the event of a side impact
- Sidebags for the outer rear seats (optional). These are integrated into the rear side paneling, and deploy at chest level between the side wall and the occupant.

The CLS not only takes care of its occupants, but also offers sophisticated pedestrian protection measures:

- Active Brake Assist warns if pedestrians are detected in the danger area, and if necessary initiates autonomous braking if the driver fails to react to the system's warnings.
- Specific flexibility in the frontal region as well as an active bonnet, which can be raised by 3.1 inches when an impact is detected, thus creating additional deformation space during an impact.

When an accident has happened: Post-accident measures

After an accident has occurred, various measures dependent on accident type and severity can mitigate the consequences and make fast rescue possible. These include:

- automatic activation of hazard warning lights
- emergency shut-off of engine and fuel pump
- unlocking the doors
- Mercedes-Benz emergency call for fastest possible assistance
- disconnection of the 12 V starter cable
- high-voltage shut-off (depending on engine variant)
- emergency switch-off of the air conditioning system
- emergency interior lighting
- ventilation by slightly lowering the front windows by a few centimeters
- exit assistance for the driver by lowering the steering column

To enable rescuers to work quickly and safely, Mercedes-Benz provides a rescue card for the CLS in various languages that can be downloaded free of charge. The new CLS is also equipped with QR code stickers – a small but effective measure with which Mercedes-Benz makes the rescue of accident victims faster and safer.

The QR code can be read with smartphones and tablet computers, and sends details of the vehicle model to the display of the rescuers. The information includes important vehicle-specific details that facilitate the rapid rescue of injured occupants.

A choice of three variants

The new CLS has a four-link front suspension and a five-link rear suspension. A dynamically set-up steel comfort suspension is standard equipment. The optionally available DYNAMIC BODY CONTROL suspension has a sporty basic setup and includes continuously adjustable damping at the front and rear axle. The selectable driving modes are Comfort, Sport and Sport +. Also available on request is the AIR BODY CONTROL air suspension with an improved, adjustable and adaptive damping system. The driver is able to choose vehicle characteristics from comfortable to sporty using the driving mode switch.

The agile handling of the CLS is due in large part to the four-link front suspension, which relieves the spring strut of wheel control functions. In addition, the four-link principle offers favorable axle kinematics. For example, it allows an improved camber change for higher cornering forces. As a result, the suspension responds more sensitively to steering movements and allows a sporty, agile driving style. Since the kingpin inclination axis is also close to the wheel center, this provides for large longitudinal force leverage and keeps the scrub radius small. This minimizes sensitivity to vibrations caused by tire imbalance and fluctuations in braking force.

As components of the new front axle are made of aluminum, they weigh about 4.4 pounds less than a corresponding steel design. This reduction in weight makes for a sensitive response.

At the rear axle, an optimized five-link suspension ensures outstanding wheel guidance and straight ahead running. The rear axle carrier and the spring control arms are made of forged aluminum. A large rear axle bearing contributes to improved isolation of vibrations and thus to the good NVH (noise, vibration, harshness) characteristics and ride comfort.

A dynamically set-up steel comfort suspension is standard equipment. This suspension with a surface-selective, passive damping system ensures well-balanced ride comfort on any road surface: on surfaces with minor bumps, the damping effect is reduced by a bypass which considerably improves driving comfort and suspension response. On bumpier roads, the full damping effect is

activated by the selective action of the damping. Lowering the suspension by 15 mm particularly improves driving stability on bends, and lends a sporty touch to the vehicle.

Page 33

The optionally available **DYNAMIC BODY CONTROL** suspension has a sporty basic setup and includes continuously adjustable damping at the front and rear axle. The selectable driving modes are Comfort, Sport and Sport+.

No compromises AIR BODY CONTROL multi-chamber air suspension

Alternatively the new CLS can be equipped with a multi-chamber air suspension. The advantages of AIR BODY CONTROL: three chambers of different sizes in the spring struts of the rear axle and two in the front axle make it possible to control how stiffly the suspension reacts in three stages. Neither the air spring struts on the front axle nor the free-standing air spring on the rear axle have any wheel control function, and are therefore not subjected to transverse forces. Passengers can enjoy a soft basic springing that irons out transverse joints in the road, asphalt repairs and other bumps. At higher speeds, they have the safe feeling of high driving stability. Hardening the spring rate e.g. on bends or when braking effectively reduces rolling and pitching movements.

Furthermore, the highly sensitive and fast-responding AIR BODY CONTROL multi-chamber air suspension features all-round self-levelling for excellent ride comfort even with the vehicle loaded. It controls the ride height automatically depending on the speed, and reduces fuel consumption on the motorway, for example by lowering the vehicle. When driving on rough roads or access roads, the ground clearance can also be increased at the push of a button using the ride height adjustment switch.

The air suspension allows three levels:

- the normal driving level of 0 mm is selected in Comfort driving mode
- the lowered level of -1.5 cm is selected in driving modes ECO, Sport and Sport+, or at speeds above 85 mph
- the raised level of +1.5 cm can be selected in all driving modes at the touch of a button, but only at speeds up to 74 mph for handling safety reasons

The multi-chamber air suspension is supplemented by continuous, electronically controlled adaptive damping at the front and rear axles. The damping at each individual wheel is adjusted fully automatically to suit the current driving situation and condition of the road – such as in the case of evasive maneuvers or on rough tracks. The system therefore delivers good ride comfort along with excellent driving dynamics.

DYNAMIC SELECT: From "Comfort" to "Individual"

There are five different driving modes that allow the driver to influence the characteristics of the CLS. The driver chooses the desired driving experience with a switch in the lower control panel of the center console. This influences the settings of various systems and components, such as the speed-sensitive power assistance for the steering, the shift points of the automatic transmission, the throttle response, the ECO start/stop function and the suspension (in combination with DYNAMIC BODY CONTROL or AIR BODY CONTROL).

The DYNAMIC SELECT modes:

Mode	Acting on		
	Springing/damping	Steering	ESP®
Comfort/ Economy	Comfort-oriented tuning of suspension and damping	Comfortable, light steering	This driving mode offers an intelligent compromise between traction and stability.
Sport	Sporty suspension and damping set-up with lowered level, incl. more sporty ASR configuration	Sporty steering sensation resulting from progressive increase in turning torque to provide driver feedback on lateral acceleration	While continuing to ensure stability, this driving mode has a more sporty configuration to allow a more active driving style for owners with sporty inclinations.
Sport+	Extremely sporty suspension and damping set-up with lowered level, incl. more sporty ASR configuration	Sporty steering sensation resulting from progressive increase in turning torque to provide driver feedback on lateral acceleration	The vehicle-specific understeering and oversteering characteristics are emphasized. This allows an even more active driving style.

The "Individual" driving mode additionally offers the possibility to vary individual parameters for suspension, steering and powertrain. They are complemented by additional adjustment options such as ECO start/stop, climate control and ECO Assist, depending on the vehicle.

All models are equipped with a sporty, electro-mechanical Direct-Steer system as standard. It combines speed-sensitive power assistance for the speed-sensitive steering with a steering ratio that varies according to the given steering angle. The power assistance for the rack-and-pinion steering gear is controlled on demand.

The advantages of electro-mechanical direct steering:

- Improved agility thanks to more direct steering response
- Comfortable handling and high level of steering comfort at all speeds
- Savings potential, since energy is required only for steering
- Enables the use of assistance systems, such as Active Park Assist

The CLS is equipped with Evasive Steering Assist as standard. This can help the driver to stabilize the vehicle in difficult handling situations. To this end, the electronics determine in which direction the driver has to steer to defuse a critical situation, and introduces a corresponding steering torque into the steering that the driver feels clearly. In this way the driver is prompted to steer in the direction that will stabilize the vehicle.

Internally ventilated brakes all-round: Fade-resistant for short braking distances

The braking system with internally ventilated compound brake discs all-round meets high standards in terms of stopping distance, response, fade resistance, directional stability and service life of the brake pads. 4-piston floating caliper brakes at the front and 1-piston floating caliper brakes at the rear ensure good deceleration. In combination with the optional AMG Exterior line, the CLS has a braking system with Mercedes-Benz lettering on the front calipers and perforated front brake discs.

ADAPTIVE BRAKE is standard equipment. This includes:

- Hill-Start Assist which prevents the vehicle from rolling backwards on hills and thus facilitates starting off
- A HOLD function which keeps the vehicle immobile without having to continuously press the brake pedal

- A brake-drying function which regularly wipes the moisture from the brake discs to make full braking power available at all times
- The priming function. This function brings the brake pads into light contact with the disc if the driver suddenly releases the accelerator, and can thus shorten the stopping distance during subsequent braking.

Page 36

An electric parking brake is also provided as standard. Pressing the control beneath the rotary light switch engages the electric parking brake; pulling releases it. The driver can also use the automatic release function Comfort Go. It automatically releases the parking brake when driving off.

Sporty design combined with performance and efficiency

The new Mercedes-AMG CLS 53 combines sporty design with powerful performance and high efficiency. Its centerpiece is a new, electrified 3.0-litre engine featuring turbocharging and an electric auxiliary compressor. The 6-cylinder in-line engine generates 429 hp and delivers maximum torque of 384 lb-ft. Its EQ Boost starter-generator delivers an additional 21 hp and 184 lb-ft over a short period, and feeds the 48V on-board electrical system. Other technical highlights include the AMG SPEEDSHIFT TCT 9G transmission and the fully variable all-wheel drive system AMG Performance 4MATIC+.

"The new CLS 53 4MATIC+ extends our portfolio with a future-oriented combination of sporty design, performance and efficiency. The basis for this is a contemporary drive configuration in the form of a six-cylinder in-line engine with electric auxiliary compressor, EQ Boost starter-alternator and 48V on-board electrical system. The very spontaneous response to accelerator pedal input, the precision and the design focusing on driving dynamics are hallmark features of AMG. As such we are providing an additional lifestyle-oriented customer group with a further attractive offering from Affalterbach," explains Tobias Moers, Chairman of the Board of Management of Mercedes-AMG GmbH.

Six-cylinder in-line engine with EQ Boost starter-alternator

The six-cylinder in-line engine is characterized by top-of-the-range performance and intelligent electrification. The EQ Boost starter-alternator combines a starter motor and alternator in a powerful electric motor and is fitted between the engine and transmission. This innovation as well as the intelligent charging via an electric auxiliary compressor and an exhaust gas turbocharger all have the same goal: to enhance the hallmark AMG performance and driving dynamics, while at the same time reducing fuel consumption.

High torque without lag

Supported by the EQ Boost starter-alternator when moving off, the electric auxiliary compressor builds up a high charge pressure without any delay, for a

faster increase in torque for acceleration until the large exhaust gas turbocharger is deployed. As a result the 3.0-liter engine reacts extremely spontaneously and provides a highly dynamic response without turbo lag. An additional bonus is the high level of refinement of the six-cylinder in-line engine.

Paving the way for hybrid functions: 48V on-board electrical system

The power for the 48-V on-board electrical system is generated by the EQ Boost starter-alternator. The conventional 12V network is likewise supplied from the new network – using a DC/DC converter. Thanks to the 48V battery, the overall battery capacity in the vehicle is increased to enable more electrical energy to be made available – thereby also allowing innovative functions to be introduced, for example. The 48V on-board electrical system is therefore paving the way for further hybridization. An additional advantage: the same power requires only a quarter of the current of a conventional system. The result is that the wiring can be thinner and therefore lighter, which indirectly contributes to saving fuel. The existing 12V system supplies power to consumers such as lights, cockpit, infotainment displays and control units.

Hybrid functions thanks to EQ Boost starter-alternator

The EQ Boost starter-alternator is a key component of the 48V system and not only serves as an alternator, but is also responsible for hybrid functions. This allows fuel savings that were previously reserved for high-voltage hybrid technology. For the first time, the EQ Boost starter-alternator is also responsible for idle speed control.

The hybrid functions include boost with 21 hp of output and up to 184 lb-ft of torque, recuperation, shifting of the load point, gliding mode and virtually imperceptible restarting of the engine with the start/stop function.

Because the belt drive for ancillary components on the front edge of the engine is omitted, the installation length of the new six-cylinder engine is also significantly reduced compared with conventional six-cylinder engines. This creates space for an exhaust gas after treatment system mounted near the engine, which is therefore particularly efficient. The standard-fit particulate filter is the only part of the exhaust system that is under the floor.

The new 3.0-liter in-line engine is coupled with the AMG SPEEDSHIFT TCT 9G transmission, which impresses with extremely short shift times, fast response to shift paddle commands, a double-declutching function and multiple downshifts. Whether automatic or initiated by the driver using the steering wheel shift paddles, upshifts or downshifts are implemented instantly. Especially in the "Sport+" and in manual driving modes, the transmission is very responsive.

Fully variable AMG Performance 4MATIC+ all-wheel drive

Power is transferred to the road by the fully variable AMG Performance 4MATIC+ all-wheel drive, which also comes as standard. This intelligent system combines the advantages of different drive concepts: the fully variable torque distribution between the front and rear axle not only ensures optimal traction, but the driver is able to rely on great driving stability and handling safety regardless of the conditions – on dry surfaces as well as on wet or snow-covered roads. The transition from rear-wheel to all-wheel drive and vice versa is seamless, because the intelligent control is integrated into the overall vehicle system architecture.

An electro-mechanically controlled clutch connects the permanently driven rear axle variably to the front axle. The best possible torque split is continuously computed according to the driving conditions and driver's input. It is thus possible to drive in a continuously variable way from traction-oriented all-wheel drive to purely rear-wheel drive. Cross-fading takes place continuously based on a complex matrix. Alongside traction and lateral dynamics, the all-wheel drive also improves the longitudinal dynamics for even more powerful acceleration.

Characteristics at the touch of a finger: AMG DYNAMIC SELECT

With the five DYNAMIC SELECT transmission modes "Eco," "Comfort," "Sport," "Sport+" and "Individual," the driver can tailor the characteristics of the CLS 53 4MATIC+ to individual preferences at the tap of a finger. The available range extends from efficient and comfortable to very sporty. This modifies key parameters, such as the response of the engine, transmission, suspension and steering. Independently of the DYNAMIC SELECT drive programs, the driver has the option of pressing the "M" button to switch directly to manual mode, in

which gearshifts are executed exclusively using the shift paddles on the steering wheel. The suspension set-ups can also be selected if desired.

Page 40

Independent AMG RIDE CONTROL+ suspension

More agility, neutral cornering performance and greater traction come courtesy of the AMG RIDE CONTROL+ air suspension developed in Affalterbach. The multi-chamber air suspension with particularly sporty spring/damper set-up and continuously adjustable damping ADS+ (Adaptive Damping System) combines outstanding driving dynamics with high ride comfort. A harder spring rate, for example when cornering and braking, effectively reduces body roll.

The front axle is fitted with special steering knuckles and load-bearing joints, and all components have been optimized in terms of rigidity. A more negative camber on the front axle and on the multi-link rear axle enhances lateral dynamics. The elastokinematics of both axles have been designed to be more rigid in general. All these measures improve agility, and boost the dynamics.

The damping at each wheel is adjusted to suit the current driving situation and the condition of the road. This is done rapidly and precisely, using two separate valves for the rebound and compression forces in the dampers. The damping characteristics can also be preselected in three modes, "Comfort," "Sport" and "Sport+," allowing a significantly more noticeable differentiation between excellent long-distance comfort and sporty driving dynamics.

Thanks to pneumatic all-round self-levelling, the CLS maintains a constant ride height regardless of the vehicle load. To increase the ground clearance, for example on steep entrances in underground car parks or on ramps, the level can be raised at the press of a button. The level is lowered automatically when driving at higher speeds. This improves handling stability thanks to a lower center of gravity.

Direct and with clear feedback: the AMG speed-sensitive steering

The electro-mechanical speed-sensitive power steering has a variable ratio. It impresses with its precise, authentic feedback. Steering power assistance is available in a choice of two modes - "Comfort" or "Sport." The corresponding characteristics are automatically activated based on the selected DYNAMIC SELECT drive program. In "Sport" mode, more feedback is conveyed about the vehicle status.

The large braking system with internally ventilated compound brake discs ensures reliable and quick deceleration. Perforated and internally ventilated brake discs measuring 370 x 36 mm with 4-piston fixed calipers and AMG lettering are fitted at the front, with internally ventilated discs measuring 360 x 26 mm and single-piston floating calipers at the rear.

Exterior: twin-blade grille and round twin tailpipe trim elements

The new CLS 53 also has a distinctive appearance. One distinguishing feature is the twin-blade grille in silver chrome, which was previously reserved for the V8 Performance models. Instead of the diamond radiator grille with individual pins, the grille in front of the central radiator now features a black lattice pattern.

The front bumper in an A-wing design is equipped with black flics and a front splitter in silver chrome. The outer air inlets have two horizontal fins in silver chrome. The additional Air Curtains at the sides are directly subjected to the airstream: this design improves aerodynamic efficiency at the front and lowers the Cd figure. The twin front splitter connects seamlessly with the Air Curtain and reduces lift at the front axle. The outer lines of the grille widen towards the bottom and lend the CLS a powerful appearance. Also making a contribution here are the sharply cut, narrow headlamps.

AMG-specific side sill panels give the CLS 53 an even more dynamic silhouette. As in all AMG GT models, the exterior mirrors are positioned on the doors and accentuate the sports car look.

When viewed from the rear, it is not just the redesigned rear apron that stands out, but also the classic, round twin tailpipe trim elements in high-gloss chrome. The design of the sides of the mud flaps improves the aerodynamics at the rear: As a result this provides for better air flow around the wheel arches. The spoiler lip on the trunk lid is painted in the body color, but is optionally also available in carbon-fiber.

The two-section tail lights visually reinforce the sense of width of the rear and as an additional practical benefit allow for the large trunk opening. The broader track width combines better cornering with a perfect look thanks to the wheels being positioned further out. As standard the CLS 53 4MATIC comes with

19-inch aerodynamically optimized light-alloy wheels, with 20-inch wheels available as an option.

Page 42

Interior with innovative display concept and operating system

The interior of the new models welcomes passengers with model-specific, exclusive appointments, luxurious materials and significantly extended options. On top of this there is the innovative control and display concept with bright, high-resolution displays optionally with 12.3-inch screen diagonal in each case. Visually, the two displays under one shared glass cover blend into a Widescreen Cockpit and as a central element consequently emphasize the horizontal orientation of the interior design.

By way of instrument cluster, the optional Widescreen Cockpit contains a large display with virtual instruments in the direct field of vision of the driver, as well as a central display above the center console. Because the cockpit is fully digital, the driver can choose the look from the three different display styles "Classic," "Sporty" and "Progressive" and also configure the information and views relevant to them at will. Via the AMG menu, it is possible to display the engine and transmission oil temperature, lateral and longitudinal acceleration, engine output and torque, boost (charge pressure), tire temperatures and pressures as well as the current vehicle set-up.

The touch-sensitive Touch Control buttons on the steering wheel respond to swiping movements. They enable the driver to control the entire infotainment system without having to take their hands off the steering wheel.

The infotainment system can also be operated via the touchpad with controller in the center console and by voice control. Voice control has been extended to include vehicle functions. Now the air conditioning and seat heating and ventilation, interior lights and the optional head-up display can also be controlled by voice commands.

New AMG Performance steering wheel as standard

The synthesis of exclusivity and sportiness is also emphasized by the sport seats with an AMG-specific upholstery pattern and AMG badge, red seat belts and trim in carbon-fiber or matte silver glass-fiber. The interior is rounded off with the new, standard-fit AMG Performance steering wheel in nappa leather

with individualization options such as wood inserts in piano lacquer or DINAMICA microfiber in the grip area.

Page 43

For the appointments, there is a choice of MB-Tex /DINAMICA microfiber, nappa leather and *designo* interiors. Apart from the classic black with red or grey contrasting topstitching, the CLS 53 is available with a choice of color combinations in Macchiato Beige/Magma Grey, Black/Bengal Red and Espresso Brown/Magma Grey, in which case the ambient color is also repeated on the steering wheel rim. The color concept is systematically continued through to the rear area (wave design). In the CLS 53, the integral seats with adjustable head restraints have also been redesigned and enhanced in terms of their shape, color and material choice. There are three fully-fledged passenger seats in the rear. The seat backrest with a 40:20:40 split as well as height-adjustable head restraints allow greater flexibility and everyday practicality.

Wellness on long-distance journeys: ENERGIZING Comfort

The optional ENERGIZING Comfort links various comfort systems in the vehicle and uses specific functions of the air conditioning and seats (heating, ventilation, massage), surface heating and steering wheel heating plus lighting and music moods. Depending on the mood or requirement of the driver, it generates a special wellness set-up to enhance well-being and performance.

Intelligent Drive: Technology from the S-Class

The CLS 53 features the latest driving assistance system generation from the S-Class. The range of driving assistance and safety systems is modular in structure. Fitted as standard are Active Brake Assist, Lane Keeping Assist, ATTENTION ASSIST, Speed Limit Assist plus the occupant protection system PRE-SAFE®. New and also part of the standard specification is PRE-SAFE® Sound (prepares human hearing for the anticipated accident noise when there is a risk of a collision).

The optional Driving Assistance package consists of Active Distance Control DISTRONIC, Active Steering Assist, Active Speed Limit Assist, Active Brake Assist with cross-traffic function, Evasive Steering Assist, Active Blind Spot Assist, Active Lane Keeping Assist and PRE-SAFE® PLUS. Active Distance Control DISTRONIC and Active Steering Assist now provide even more comfortable support for the driver to keep a safe distance and steer. The speed is now adjusted automatically ahead of bends or junctions. Active Lane

Changing Assist has also been significantly improved (country-specific differences are possible for individual functions). In addition, the Driving Assistance Plus package includes PRE-SAFE® Impulse Side. This system can brace the front occupants for a side impact by nudging them sideways to reduce the risk of injury.

In addition the CLS 53 adopts the improved camera and radar systems from the Mercedes-Benz CLS, and thus has an ideal view of the traffic conditions. For the first time it also makes use of map and navigation data to calculate vehicle behavior.

Exclusive Edition 1

From the time of market launch, the exclusive Edition 1 will be available for the CLS 53 which boasts the a unique interior design. Numerous highlights in a fine copper color help to ensure a particularly high-quality interior atmosphere. The leather upholstery in black nappa also features copper-colored contrasting topstitching, as do the instrument panel, armrests, center console, door panels and piping on the floor mats.

Trim elements and the center console in carbon fiber with copper stitching and the Performance steering wheel with Edition badge equally underscore the vehicle's exceptional position. The luxurious character is furthermore reinforced by the ambient lighting with 64 colors, the Memory and Mirror package and the exclusive IWC analogue clock.

Technical data at a glance

	Mercedes-AMG CLS 53
Engine	3.0-liter 6-cylinder in-line engine with exhaust gas turbocharger and electric auxiliary compressor
Displacement	2,999 cc
Output	429 hp
Add. output with EQ Boost	21 hp
Peak torque	384 lb-ft
Add. torque with EQ Boost	Up to 184 lb-ft
Drive system	AMG Performance 4MATIC+ all-wheel drive with fully variable torque distribution
Transmission	AMG SPEEDSHIFT TCT 9G
Acceleration 0-60 mph	4.4 s (est.)
Top speed	130 mph (electronically limited)

The descriptions and information in this press kit apply to the international model range of Mercedes-Benz and Mercedes-AMG. They may vary from country to country and are subject to change.

Page 45

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About Mercedes-Benz USA

Mercedes-Benz USA (MBUSA), headquartered in Atlanta, is responsible for the distribution, marketing and customer service for all Mercedes-Benz products in the United States. MBUSA offers drivers the most diverse lineup in the luxury segment with 15 model lines ranging from the sporty CLA-Class four-door coupe to the flagship S-Class and the Mercedes-AMG GT R.

MBUSA is also responsible for Mercedes-Benz Vans and smart products in the U.S. More information on MBUSA and its products can be found at www.mbusa.com, www.mbsprinterusa.com and www.smartusa.com.

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