Mercedes-Benz

Passion and perfection

Press Information

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Higher performance, lower consumption – the new CL 63 AMG with an output of 400 kW

Melbourne – Exciting cutting-edge technology from Affalterbach: the Mercedes-Benz CL 63 AMG will benefit from a newly developed powertrain. The AMG 5.5-litre V8 biturbo engine with a peak output of 400 kW and a torque rating of 800 Nm, in combination with the unique AMG SPEEDSHIFT MCT 7–speed sports transmission, contributes towards a considerable reduction in consumption and emissions, while at the same time increasing maximum power and torque. With a fuel consumption of 10.6 litres per 100 kilometres (combined), the new high-performance cars not only undercut their direct competitors – they are also more than 25 percent more economical in terms of their fuel consumption than the previous models with naturally aspirated V8 engine.

The Mercedes-Benz CL 63 AMG also features a new cutting-edge look: thanks to a new design the Coupé has an even more athletic and confident appearance. The inclusion of the Direct-Steer system, Torque Vectoring Brake and crosswind stabilisation as standard has resulted in another leap forward in terms of agility and active handling safety. Standard features include Active Lane Keeping Assist and Active Blind-Spot Assist.
The exclusive V12 model - the CL 65 AMG - now produces 463 kW instead of the previous 450 kW.

The CL 63 AMG marks the start of a new chapter in the "AMG Performance 2015" drive strategy: Mercedes-AMG is continuing this impressive story and is meeting its promise to continuously reduce both the fuel consumption and emissions of new models with the new engine/transmission combination – while also reaching new heights with the central AMG brand value of "performance".

According to Ola Källenius, head of Mercedes-AMG GmbH: "We are heading into a new era with the CL 63 AMG: for the first time we have combined spray-guided di-

rect petrol injection with biturbocharging and the start/stop system. Together with the AMG SPEEDSHIFT MCT 7-speed sports transmission, we have reduced both fuel consumption and emissions significantly – while at the same time increasing output and torque."

Together with the unique AMG SPEEDSHIFT MCT 7-speed sports transmission, the new AMG 5.5-litre V8 biturbo engine will play a significant role in the Mercedes-AMG model strategy over the coming year. The new engine / transmission combination marks a further milestone in the successful history of Mercedes-AMG, which began back in 1967.

Direct petrol injection with spray-guided combustion and biturbocharging

Designated internally as the M 157, the new V8 engine is a prime example of efficiency and features a whole host of impressive technological highlights: for the first time AMG is taking advantage of direct petrol injection with spray-guided combustion and piezo injectors. This technology enables improved fuel economy thanks to higher thermodynamic efficiency, which in turns leads to lower exhaust emissions. AMG has combined the spray-guided combustion with biturbocharging. Other highlights of the innovative, original eight-cylinder engine from Affalterbach include full aluminium crankcase, four-valve technology with variable intake valve timing, air/water charge air cooling, generator management and also standard Controlled Efficiency start/stop function. Compared with the AMG 6.3-litre naturally aspirated V8 engine with a displacement of 6208 cc, the new AMG 5.5-litre V8 biturbo engine achieves all this with a displacement of 5461 cc.

This high-tech package leads to a high output and torque yield, together with fuel consumption figures that are unrivalled in the competitive line-up. The AMG 5.5-litre V8 biturbo engine develops a peak output of **400 kW** and maximum torque of 800 Nm. A look at the performance diagrams shows that no other engine in this output class achieves the figures delivered by the new AMG biturbo.

With a combined fuel consumption figure of only 10.6 litres per 100 kilometres, the CL 63 AMG is 3.8 litres more economical than the preceding model powered by the naturally aspirated AMG 6.3-litre V8 – despite an increase in output of **14 kW** and in torque of 170 Nm. Engine specialists consider this achieved fuel saving of more than 25 percent to be nothing less than a quantum leap. CO_2 emissions have likewise been significantly reduced: at 247 grams per kilometre, the figure is almost 30 percent lower than for the previous model. As such, the new AMG models are not only considerably better than all their competitors, but also more fuel-efficient than much less powerful cars in this segment.

Sports car-level performance

At the same time the CL 63 AMG delivers superior performance at sports car level: this model accelerates from zero to 100 km/h in 4.5 seconds, and has an electronically limited top speed of 250 km/h.

It is not only the unrivalled torque delivery of this turbocharged eight-cylinder that makes the heart beat faster, as the agile responsiveness with no irritating charger delay leads to an effortlessness and dynamism previously unknown in this output class. All perfectly matched by the powerful, sonorous engine note. Moreover, this AMG high-performance engine naturally meets all the requirements with respect to smooth, quiet running and the comfort on long journeys that is to be expected of a Mercedes.

Key data at a glance:

	CL 63 AMG
Displacement	5461 cc
Bore x stroke	98.0 x 90.5 mm
Compression ratio	10.0:1
Output	**400 kW** at 5500 rpm
Max. torque	800 Nm at 2000 - 4500 rpm
Engine weight (dry)	204 kg
Power/weight ratio	0.41 kg/hp 0.39 kg/hp*
Fuel consumption NEDC combined	10.6 l/100 km
CO_2 emissions	247 g/km
Acceleration 0 - 100 km/h	4.5 s
Top speed**	250 km/h

** electronically limited

AMG SPEEDSHIFT MCT 7-speed sports transmission

Power is transferred by the AMG SPEEDSHIFT MCT 7-speed sports transmission used exclusively by AMG, which is already familiar from the SL 63 AMG and E 63 AMG and combines high emotional appeal with outstanding driving dynamics, impressive comfort and a high level of efficiency. The wet start-up clutch replaces a conventional torque converter, and helps to save fuel. The exemplary fuel economy is also in large measure due to the standard start/stop function. This system is active in the transmission's Controlled Efficiency ("C") mode, and switches the eight-cylinder engine off when the car comes to a stop. In "C" mode the sports coupé always start off in second gear, and the transmission shifts to the next, higher gears at a decidedly early stage. With its high torque at low engine speeds, the V8 engine encourages a smooth, effortless driving style.

The eight-cylinder biturbo engine also features the generator management system familiar from the E 63 AMG: whenever the engine is on the overrun or when braking, kinetic energy is used to charge the battery rather than being wasted as heat in the usual way. In all other operating modes a combination of onboard network and generator management enables the generator to be kept at a low voltage. This reduces the load on the engine and makes for fuel savings of around 0.15 litres per 100 kilometres, and up to 0.2 l/100 km in city traffic with its frequent overrun and braking phases.

Engine production – tradition of hand-built excellence

Like all other AMG engines, the new eight-cylinder biturbo unit is assembled by hand in the AMG engine shop in Affalterbach. Highly-qualified technicians assemble the M 157 according to the "one man, one engine" philosophy, maintaining the very strictest quality standards. This painstaking care is attested to by the signature on the characteristic AMG engine plate.

Long tradition of powerful AMG V8 engines

Powerful eight-cylinder engines are an inseparable part of AMG's corporate history. Established in 1967, the company immediately caused a stir with the 300 SEL 6.8 AMG which succeeded in taking second place at the 24-hour races at Spa-Francorchamps (Belgium). The AMG racing saloon was technically based on the Mercedes-Benz 300 SEL 6.3. With an engine output of **184 kW** at 4000 rpm and a top speed of 220 km/h, this luxury V8 saloon was Germany's fastest regular production car at the time. Classic tuning as well as an enlarged displacement from 6330 to 6835 cc resulted in an increase in output to **315 kW** at 5500 rpm and in torque from 500 to 608 Nm.

A further milestone in the AMG engine story was the M 117, the first eight-cylinder unit with four-valve technology. With a displacement of 5.6 litres, **265 kW** and 510 Nm of torque, this V8 accelerated the Mercedes-Benz

300 CE 5.6 AMG to a top speed of 303 km/h in 1987. This made the coupé the fastest German car in series production, and American fans reverently christened it "The Hammer".

Another important engine in the history of AMG was the supercharged AMG 5.5-litre V8 introduced in 2001: the M 113 K developed an output of up to **428 kW** and torque of 800 Nm. The supercharged AMG 5.5-litre V8 in the SLR McLaren of 2003 was even more powerful – the M 155 developed up to **478 kW** and 820 Nm. 2005 saw the debut of the AMG 6.3-litre V8 engine; depending on the model, the naturally aspirated, high-revving M 156 developed up to **386 kW** and 630 Nm. Exclusively reserved for the new SLS AMG, the likewise 6.3-litre M 159 has a maximum output of **420 kW** and maximum torque of 650 Nm.

Numerous victories in the "International Engine of the Year Awards"

The supercharged AMG 5.5-litre V8, the AMG 6.3-litre V8 and the AMG 6.0-litre V12 biturbo were all able to win the Best Performance Engine category in the International Engine of the Year Awards. The AMG 6.3-litre V8 also won in 2009 and 2010 in the "Above 4 litres" class.

CL 63 AMG with new look and attractive standard equipment

The new CL 63 AMG now has an even more athletic and confident appearance. The bonnet, headlamps, radiator grille, bicolour tail lamps and the newly designed AMG bodystyling all add more dynamism. The "V8 BITURBO" lettering on the front mudguards also makes for an eye-catching touch. New in the interior are the AMG sports steering wheel - with silver-coloured aluminium shift paddles and specially shaped grip area covered with perforated nappa leather, as well as the "AMG V8 BITURBO" start screen in the AMG instrument cluster. SPLITVIEW is also standard for the COMAND multimedia system.

With immediate effect, standard equipment on the CL 63 AMG now includes the Direct-Steer system, Torque Vectoring Brake and crosswind stabilisation. With its variable ratio depending on steering angle, the Direct-Steer system helps to ensure a more direct response when cornering, and therefore more responsive handling – in brief: enhanced driving pleasure at the wheel of the Mercedes-AMG CL-Class. Thanks to brief direct application of the brakes on the vehicle's inner rear wheel when cornering, the Torque Vectoring Brake, meanwhile, helps to ensure that the V8 coupé corners precisely and under control at all times.
The Torque Vectoring Brake is an additional feature of the Electronic Stability Program ESP® and not only noticeably improves responsiveness but also active handling safety in critical conditions.

The AMG sports suspension based on Active Body Control (ABC) now also provides crosswind stabilisation as an additional function: thanks to this feature, influences caused by crosswinds are compensated for, or – in the case of strong gusts – reduced to a minimum. ABC compensates against the effect of crosswinds by adjusting the wheel load distribution within milliseconds, using the yaw-rate and lateral acceleration sensors of the ESP®.

Active Lane Keeping Assist and Active Blind Spot Assist

What is a unique combination of innovative camera and radar-based driver-assistance systems in this vehicle class has been enhanced even further with a view to perfecting the vehicle's active and passive safety. New standard features for the CL 63 AMG include Active Lane Keeping Assist and Active Blind-Spot Assist. The new Active Lane Keeping Assist comes into play when the vehicle unintentionally strays over a solid line on the right or left of a lane or on the outside of a bend. In such cases the Electronic Stability Program ESP® applies the brakes to the wheels on the opposite side of the vehicle to prevent it from unintentionally straying from its lane.

Also new is the Active Blind Spot Assist, which warns the driver by displaying a red warning in the glass of the relevant exterior mirror when it detects that changing lanes would be too dangerous. If the driver ignores the warning signal

and a vehicle in an adjacent lane comes too close, the ESP® takes corrective action by applying the brakes to the wheels on the opposite side of the vehicle.

AMG high-performance braking system with double floating brake caliper

Based on the ADAPTIVE BRAKE system, the AMG high-performance braking system continues to provide optimum fade resistance, deceleration and sensitivity. The front axle features a double floating brake caliper. This exclusive technology combines the advantages of a sliding-caliper disc brake – reduced heat transfer to the brake fluid and clear advantages in terms of comfort thanks to the brake lining guide mechanism – with the efficiency of an extra large fixed caliper brake.

The new CL 63 AMG is now on sale along with the CL 65 AMG.

CL 63 AMG - 5,461cc, 8-cylinder Bi-Turbo, 400 kW and 800 Nm $423,300
CL 65 AMG - 5,980cc, 12-cylinder Bi-Turbo, 463 kW and 1000 Nm $519,250

Important information for Editors

The prices detailed in this document are current Manufacturer's List Prices (MLPs).

As you may be aware, the MLP includes GST and any LCT applicable to the base / standard specification model but EXCLUDES DEALER DELIVERY AND ALL ON ROAD COSTS such as, for example, registration fees, stamp duty, CTP and the like.

Accordingly, please ensure that when you publish the details contained in this document, your publication makes it clear to its readers that:

- The attached pricing is an MLP
- That the MLP excludes on road costs and dealer delivery, and
- For drive away price information, consumers should contact dealers

Whilst we are unable to provide you with drive away pricing due to the wide variation in on-road costs between states and territories, and the different ranges of dealer delivery imposed by dealers, we encourage you to contact one of our authorised Mercedes-Benz passenger car dealers in order to obtain relevant and accurate drive away information for your specific audience.

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Engine production – tradition of hand-built excellence

Like all other AMG engines, the new eight-cylinder biturbo is assembled by hand in the AMG engine shop taken into commission in 2002. Highly-qualified technicians assemble the M157 according to the "one man, one engine" philosophy, maintaining the very strictest quality standards. This painstaking care is attested to by the signature on the characteristic AMG engine plate.

At a glance:

The highlights of the AMG V8-biturbo engine and the AMG SPEEDSHIFT MCT 7-speed sports transmission

- Direct petrol injection with piezo-electric injectors and spray-guided combustion
- Biturbocharging with air/water intercooling
- Sophisticated engine electronics with Controlled Efficiency start/stop function and generator management
- Aluminium crankcase with ventilation holes to reduce friction
- Continuous camshaft adjustment on the intake and exhaust sides
- Demand-controlled engine oil pump
- AMG SPEEDSHIFT MCT 7-speed sports transmission with compact start-up clutch and three drive modes

Perfect combination of performance and efficiency

Emotional peak performance and enormous torque, agile power delivery and a characteristic engine sound, comfort on long journeys and hallmark Mercedes reliability: expectations are high when Mercedes-AMG introduces a new high-performance engine – and its first eight-cylinder biturbo unit is no exception. Two criteria are inexorably gaining in importance, namely efficiency and economy. Mercedes-AMG is confronting the challenges of the future, and demonstrating that exciting dynamic performance can be perfectly combined with fuel economy.

The new AMG 5.5-litre biturbo engine for the CL 63 AMG combines performance with efficiency to a previously unknown extent. This is made possible by a unique combination of innovative high-tech systems such as direct petrol injection, biturbo-charging, air/water intercooling and the Controlled Efficiency start/stop function. Mercedes-AMG is systematically following the trend towards increasing efficiency with its new V8 biturbo engine: with a displacement of 5461 cubic centimetres it is precisely 747 cc below the 6208 cc of the naturally aspirated AMG 6.3-litre V8. Nonetheless it considerably betters it in terms of output and torque. It develops a peak output of **400 kW** and maximum torque of 800 Nm. The torque curve in particular shows that no other engine in this output class is able to match the figures delivered by the new AMG biturbo unit.

Despite an increase in output of **14 kW**, and in torque of 170 Nm compared to the naturally aspirated V8, which develops **386 kW** and 630 Nm, AMG engineers have been able to reduce fuel consumption and CO_2 emissions considerably. With combined fuel consumption of only 10.6 litres per 100 kilometres, the CL 63 AMG beats its predecessors by 3.8 litres. This equates to a fuel saving of more than 25 percent, which engine specialists consider to be nothing less than a quantum leap. CO_2 emissions have likewise been significantly reduced: at 247 grams per kilometre, almost 30 percent lower than for the previous model (346 g/km).

The achievement of these efficiency and environmental aims has no negative effects whatsoever on dynamic performance. On the contrary, as the new AMG 5.5–litre V8 biturbo fully lives up to AMG's brand commitment to "performance": the CL 63 AMG accelerates from zero to 100 km/h in 4.5 seconds, and has a top speed of 250 km/h (electronically limited).

Key data at a glance:

	CL 63 AMG
Cylinder arrangement	V8
Cylinder angle	90°
Valves per cylinder	4
Displacement	5461 cc
Bore x stroke	98.0 x 90.5 mm
Cylinder spacing	106 mm
Compression ratio	10.0:1
Output	**400 kW** at 5500 rpm
Output per litre	**73 kW**
Max. torque	800 Nm at 2000 - 4500 rpm
Torque per litre	146 Nm
Maximum engine speed	6500 rpm
Mean pressure	18.5 bar
Engine weight (dry)	204 kg
Power/weight ratio	0.37 kg/hp

Fuel consumption NEDC combined	10.6 l/100 km
CO_2 emissions	247 g/km
Acceleration 0 - 100 km/h	4.5 s
Top speed	250 km/h*

* electronically limited.

Combination of biturbocharging and direct petrol injection

Mercedes-AMG is presenting an attractive high-tech package with its combination of biturbocharging and direct petrol injection with spray-guided combustion. The innovative injection technology brings decisive advantages with respect to fuel consumption and exhaust emissions, thanks to higher thermodynamic efficiency. Particularly fast and precise piezo-electric injectors spray the fuel directly into the combustion chambers, ensuring a homogenous fuel/air mixture and highly effective combustion.

An electric low-pressure pump delivers the fuel from the tank to a high-pressure pump in the boot with a pressure of six bar. The fuel pressure in the high-pressure rail is controlled between 100 and 200 bar on a fully variable and demand-related basis.

Two exhaust gas turbochargers located next to the cylinder banks supply the eight cylinders with fresh air. At their maximum speed of 185,000 rpm under full load, the two turbochargers force 1750 kg of air into the combustion chambers per hour. The maximum charge pressure is 1.0 bar, and 1.3 bar with the AMG Performance package. Thanks to their specific, compact construction – the turbine housings are welded to the exhaust manifold – there are significant space advantages and the catalytic converters also heat up more rapidly.

The new AMG V8 is the first turbocharged engine to dispense with the usual blow-off valve. This neat solution enabled the compressor housing to be made extremely compact. To ensure agile responsiveness with no time lag, all the air ducts in the intake tract are as short as possible. The wastegate valve, which reduces the pressure in the exhaust system during negative load changes, is vacuum-controlled via an electropneumatic converter. This allows dethrottling under partial loads, which in turn lowers the fuel consumption.

As was already the case in the AMG 6.0-litre V12 biturbo engine, the new eight-cylinder direct-injection unit uses particularly efficient air/water intercooling. The low-temperature cooler with its water circulation is space-savingly accommodated within the V of the cylinder banks. It effectively cools down the intake air compressed by the turbochargers before it enters the combustion chambers, and maintains a constantly low intake temperature under full load. A large radiator at the car's front end ensures defined cooling of the water circulating in the low-temperature circuit. This guarantees a high output and torque yield in all ambient temperatures and operating conditions. Extremely short charge air ducting makes for outstanding responsiveness. The stainless steel pressure pipes for the fresh and charge air are produced by the hydroforming process, have a wall thickness of only 0.8 millimetres and are designed for particularly low pressure loss.

Aluminium crankcase with Silitec cylinder liners

The crankcase of the new AMG 5.5-litre V8 biturbo engine is of diecast aluminium. The low (dry) engine weight of just 204 kilograms is the result of uncompromising lightweight construction methods, and leads to the car's very balanced weight distribution. The bearing cover for the main crankshaft bearings is of grey cast iron, and is bolted to the crankcase for high rigidity. Cast-in Silitec cylinder liners ensure that the eight pistons operate with low friction. Drilled pulsation holes in the crankcase lead to a higher output and fuel savings under partial load: above the bearing blocks there are longitudinally drilled holes which connect adjacent crankcase cavities. Normally the upward and downward movement of the pistons causes air to be forced into and extracted from the sump, which leads to increased internal friction losses and therefore a reduction in output. The pulsation holes prevent this by ensuring effective pressure compensation between the cavities.

The forged crankshaft of high-grade 38MnS6BY steel alloy rotates in five main bearings, has eight counterweights and has been optimised with respect to torsional rigidity, inertia, low rotating masses and a long operating life. A two-mass viscous damper mounted at the front reliably eliminates vibrations. Each connecting rod journal on the crankshaft carries two forged, cracked connecting rods. In the interests of low mechanical friction and high wear resistance, the lightweight pistons have a metallic contact surface. Pressure-controlled oil-spray nozzles in the crankcase ensure that the highly stressed piston crowns are efficiently cooled.

Four-valve technology with variable camshaft adjustment

Perfect charging of the combustion chambers is ensured by large intake and exhaust valves, of which there are four per cylinder. The exhaust valves, which are subject to high thermal loads, are hollow and sodium-cooled. Four overhead camshafts operate the 32 valves via low-maintenance, low-friction cam followers. The infinitely variable camshaft adjustment within a range of 40 degrees on the intake and exhaust sides depends on the engine load and engine speed, leading to

outstanding output and torque values. This also results in consistent idling at a low speed. Depending on the engine speed, valve overlap can be varied for the best possible fuel/air supply to the combustion chambers and efficient removal of the exhaust gases. The variable camshaft adjustment is carried out electromagnetically via four pivoting actuators, and is controlled by the engine control unit. The camshafts are driven by three high-performance silent chains, which have considerable advantages in terms of noise comfort compared with cylinder roller chains.

Efficient oil supply and water cooling

Efficient oil delivery under all load and operating conditions is ensured by an oil pump with an electrically controlled compression stage. The oil pressure can be varied between two and four bar, which has advantages in terms of friction and fuel consumption. An extraction stage integrated into the oil pump for the two turbochargers prevents oil from being entrained into the charge air and exhaust gases, thereby helping to reduce emissions even further. Both the sump and the extraction point have been optimised for maximum lateral acceleration and efficient lubrication. The oil capacity is 10.5 litres.

The combined water/oil cooling system is a particularly clever solution: initially the engine oil only flows through the oil/water heat exchanger. If the cooling performance of the very compact cooler is insufficient, the flow is directed through the external engine oil/air cooler by an oil thermostat. The advantage of this system is that the engine oil warms up more rapidly, as the engine coolant warms up faster and the oil is later cooled by the coolant. A selectable water thermostat ensures rapid warming of the coolant when starting the engine and driving off.

The engine coolant is cooled using the particularly effective crossflow principle. There is a transverse flow of coolant through both the crankcase and the cylinder heads. Additional cooling slots in the cylinder head ensure more efficient cooling of the combustion chambers, which has advantages during combustion: it enables earlier ignition timings to be chosen without incurring the risk of knocking.

Highly efficient engine electronics for every function

All the engine functions are executed and controlled by a particularly efficient Bosch MED 17.7.3. control unit. This state-of-the-art engine computer not only controls the direct petrol injection, charge pressure, camshaft adjustment and variable oil supply, but also communicates with all the other onboard control units. The microprocessor has more than 30,000 different parameters and functions stored in its memory, and is able to perform up to 260 million individual operations per second. To reduce the load on the engine control unit, the eight individual ignition coils have an integral electronic module known as an ignition amplifier at each cylinder. These ensure a strong ignition spark at all engine speeds and under all load conditions. Eight high-voltage output stages are responsible for highly precise fuel distribution to the piezo-electric injectors.

Effective emissions technology with new catalytic converter boxes

Low exhaust emissions, compliance with country-specific standards and a characteristic AMG engine sound – the requirements for the exhaust system of the new AMG 5.5-litre V8 biturbo engine were manifold and complex. The CL 63 AMG complies with the current EU5 emission standard.

The turbochargers are welded to the exhaust manifolds, while air gap-insulated manifolds with a wall thickness of only 1.0 millimetre ensure a rapid catalytic converter response. For efficiency and to save space, this concept has a tandem catalytic converter housing on each side of the vehicle: adjacent to the firewall, two thin-walled ceramic substrates are grouped into each housing. This solution makes the previous, additional underbody catalytic converters unnecessary. The two ceramic substrates differ to ensure rapid and efficient emissions control: the front one is coated with palladium, while the rear one has a bimetal coating of palladium and rhodium. One lambda sensor per row of cylinders is located in front of each catalytic converter housing, and there is a lambda diagnostic sensor between each of the two thin-walled substrates.

The lambda sensors are necessary for demand-related lambda control. In all operating conditions, the constituents of the intake mixture can be precisely controlled to avoid damaging the catalytic converters. This also benefits the fuel consumption under full load, as the mixture can be leaner than in engines without this control system.

Twin-pipe AMG sports exhaust system for a characteristic sound signature

The twin-pipe AMG sports exhaust system has a pipe cross-section of 70 millimetres from the manifolds to the rear silencers. When designing the sound, the aim was to create a perfect synthesis of perceived dynamism and the comfort on long journeys that is the hallmark of a Mercedes. The goal of the developers was to achieve an emotional experience when accelerating and double-declutching, but unobtrusiveness at constant speeds. Unpleasant frequencies or droning noises were effectively eliminated during a series of painstaking tests. The sports exhaust system emits a sonorous eight-cylinder sound that is typical of AMG, while the striking chrome twin tailpipes feature a new design.

Intelligent solutions for maximum driving pleasure and low fuel consumption

Seven gears, three driving modes and a double-declutch function: the power transmission of the CL 63 AMG guarantees great emotional appeal and sheer driving pleasure. At the same time the AMG SPEEDSHIFT MCT 7-speed sports transmission makes a considerable contribution to fuel economy – and specifically in combination with the new Controlled Efficiency driving mode with start/stop function and generator management included as standard features. Accordingly the AMG MCT transmission impresses with a combination of unique functions which no other manufacturer offers in this form.

The AMG SPEEDSHIFT MCT 7-speed sports transmission is an innovative power transfer system that made its debut in the high-performance SL 63 AMG Roadster in 2008, and has also been in use in the E 63 AMG since summer 2009. It combines the sporty, direct and agile feedback of a manual transmission with the maximum convenience of an automatic transmission. Featuring seven gears, three driving modes and a double-declutch function, the 7-speed sports transmission offers superb versatility. MCT stands for Multi-Clutch Technology and indicates that only clutch elements are employed to perform gearshifts.

A compact wet start-up clutch, which runs in an oil bath, replaces the conventional torque converter. Thanks to its low rotational inertia, the transmission responds instantaneously and dynamically without the losses typical of a torque converter transmission – thereby helping to save fuel. The AMG sports transmission also impresses with its low weight of just 80 kilograms, which has been made possible through the use of lightweight magnesium for the transmission housing. Vibrations are effectively eliminated by a new, two-stage torsion damper, with resulting benefits in perceived passenger comfort.

Consumption-optimised Controlled Efficiency ("C") drive mode

During its development and adaptation to the AMG 5.5-litre V8 biturbo engine, the AMG engineers paid special attention to the new driving mode Controlled Efficiency ("C"). The emphasis was on delivering minimum engine speed coupled with a reduced number of gearshifts in all driving situations. When moving off in "C", the MCT transmission always selects second gear and shifts decidedly early to the next higher gears if the driving style permits. At 60 km/h for instance, sixth gear will already be engaged – not only improving fuel consumption but also noise levels. Thanks to its powerful, readily available torque even at low engine speeds, the AMG V8 biturbo unit is absolutely ideal for this style of driving. Controlled Efficiency also means convenient gearshifts and a "soft" accelerator response set-up for outstandingly smooth power transfer.

Controlled Efficiency start/stop function as a new feature

The Controlled Efficiency start/stop function is also being used for the first time. This system is standard equipment in the CL 63 AMG, and permanently active in the fuel economy driving mode "C". Once the driver comes to a halt e.g. at a red traffic light, the engine is automatically switched off. Once the brake pedal is released or the accelerator is depressed, the engine is immediately restarted and the car is able to move off quickly. Intelligent technology guarantees a comfortable and immediate starting procedure: a crankshaft sensor which recognises the direction of rotation registers the resting position of all eight pistons. For an automatic engine start, the cylinder with the most favourable piston position receives an injection of fuel into its combustion chamber. The precise piezo-electric injectors greatly assist this process, as they make particularly fast starts possible.

The engine management ensures that the engine is only switched off if certain preconditions are met. The starter battery must have sufficient charge, for example, and the engine must be at the necessary operating temperature for efficient emissions control. The same applies to the interior temperature selected by the driver: if this has not yet been reached, the engine is not switched off when the car comes to a stop. The onboard network management system makes sure

that active audio, telephone or video functions are not interrupted by the start/stop function.

A green "ECO" symbol in the AMG main menu shows the driver that the Controlled Efficiency start/stop function is active. Should one of the above criteria be preventing activation of the system, this is shown in the central display by the message "Start/stop inactive" and a yellow "ECO" symbol. In the two more performance-oriented driving modes "S" (Sport) and "M" (Manual), the start/stop function is always deactivated. If required, the driver can also switch it off while in "C" mode as well.

The eight-cylinder biturbo engine also features the generator management system familiar from the E 63 AMG: whenever the engine is on the overrun or when braking, kinetic energy is used to charge the battery rather than being wasted as heat in the usual way. In all other operating modes a combination of onboard network and generator management enables the generator to be kept at a low voltage. This reduces the load on the engine and makes for fuel savings of around 0.15 litres per 100 kilometres and up to 0.2 l/100 km in city traffic with its frequent overrun and braking phases.

Drive modes "S" and "M" for even more driving pleasure and dynamism

The engine and transmission come across as much more agile in the "S" (Sport) mode. Accelerator pedal movements trigger a more direct traction response, making the downshifts more spontaneous. The engine speed is allowed to reach a higher level in each gear, while the gearshifts are around 25 percent faster than in "C". In the manual shift mode "M", gearshifts at full throttle take just 100 milliseconds, a reduction of 50 percent compared to "C". In "S" and "M" modes, the engine management system partially suppresses the cylinders: interrupting ignition and injection under full load leads to even faster gearshifts than before. An appealing side effect of this lightning-fast process are the highly emotional vocals when changing gear.

Ultra-fast, spontaneous multiple downshifts are another forte of the AMG SPEEDSHIFT MCT 7-speed sports transmission. For instance, kickdown allows gearshifts straight from seventh down to fourth gear, or from fifth to second. In the "S" and "M" driving modes the automatic double-declutching function is active. Every manual or automatic downshift is accompanied by precisely metered double-declutching – incrementally from "S" to "M". And this not only adds to the driver's emotional experience: the load-free downshift minimises load-change reactions, which pays particular dividends when braking into bends – and also enhances safety in the wet or on ice.

No automatic downshifts in manual "M" mode

In manual "M" mode the driver also benefits from the high torque of the V8 biturbo engine, as there is no automatic downshift under full load and kickdown; the transmission remains steadfastly in the selected gear. Moreover, the 7-speed sports transmission does not perform an automatic upshift in manual mode when the rev limit is reached. In "M" mode the AMG instrument cluster displays the current gear and alerts the driver to the need for an upshift just before the needle reaches the red zone by means of a red "up" symbol. This means that a particularly sporty driver can use the superior performance potential to its fullest extent. When approaching the lower rev limit, e.g. when braking the vehicle, there is an automatic downshift to the next lower gear.

The gears can be shifted using the shift paddles – whatever the driving mode. The electronic key for selection of the three driving models is located to the left of the COMAND controller. The powerful electronic transmission control unit with its integrated 80 MHz processor guarantees immediate downshifts – for example when approaching traffic lights or if the driver requires fast acceleration when overtaking.

Perfect blend of driving dynamics, ride comfort and active safety

The Direct-Steer system, Torque Vectoring Brake and crosswind stabilisation are the three new systems now available as standard on the CL 63 AMG. In combination with the AMG sports suspension and AMG high-performance braking system, these unique high-tech systems provide the highest level of driving dynamics, ride comfort and active safety.

Less steering effort, more agile handling with the same outstanding straight-line stability – the Direct-Steer system in a nutshell, which is now fitted as standard to the CL 63 AMG. A key feature of the Direct-Steer system is the variable-ratio steering rack that operates using purely mechanical means. While the power steering around the central position utilises an indirect ratio to promote excellent straight-line stability, this alters from a steering angle of around five degrees: really small steering angles are all it takes to perform precise cornering, noticeably improving handling on winding country roads. The steering angle requirements have also been modified, enabling the driver to steer the AMG Coupé far more easily, particularly on urban roads. Compared with a steering system with a constant ratio, the number of revolutions from lock to lock is reduced by around 25 percent with the Direct-Steer system.

Another advantage of the purely mechanical Direct-Steer system is the absence of any elaborate actuators and additional sensors – with associated benefits in terms of weight, installation space and susceptibility to faults. The constant steering response is also advantageous compared with other variable steering systems that sometimes require the driver to adapt quickly to what are fast changing situations on the road.

The Direct-Steer system is based on the familiar speed-sensitive power steering system which reduces the power assistance as the road speed increases. Easy manoeuvrability on urban roads where large steering angles and thus a great deal

of power assistance is required, is coupled with reduced support at high speeds, say on the motorway – all of which improves straight-line stability and handling safety.

Torque Vectoring Brake optimises driving dynamics and handling safety

A further improvement in driving dynamics as well as active handling safety comes courtesy of the Torque Vectoring Brake, which is now also fitted as standard on the CL 63 AMG. If the Electronic Stability Program ESP® detects the onset of understeer, short one-sided braking intervention on the vehicle's inside rear wheel generates a specific yawing moment around the vehicle's vertical axis within a fraction of a second. Consequently, the coupé handles precisely and remains under control at all times as well as also bolstering active handling safety by reducing the tendency to understeer.

Automatic crosswind stabilisation as standard

The AMG sports suspension based on Active Body Control (ABC) now also comes with automatic crosswind stabilisation in the CL 63 AMG. The ABC control electronics vary the wheel load distribution so that the effect of crosswinds is virtually compensated for or reduced to a minimum. If the coupé is affected by a crosswind, the ABC control unit utilises the yaw-rate, lateral acceleration, steering angle and speed sensors of the Electronic Stability Program ESP® to trigger diagonal wheel load distribution instantly – for instance on the left front and right rear wheel. The associated steering effect reduces the effect of the crosswind. Crosswind stabilisation is activated at speeds above 80 km/h while travelling in a straight line or on slight bends. The function is deactivated if the driver himself makes heavy, brusque steering corrections.

Based on Active Body Control (ABC), the AMG sports suspension all but entirely eliminates the body movements that occur in both high-performance vehicles when moving off, cornering and braking. Bends are negotiated with far less roll; the body roll caused by fast evasive manoeuvring is effectively suppressed. Other notable features of Active Body Control are the variable roll moment distribution between the front and rear axles, which the system carries out automatically according to

the speed. The computer uses various acceleration sensors to obtain information on the current driving situation and compares this data with those from the pressure sensors in the spring struts and the level sensors on the control arms. The system then computes the control signals that the servo-hydraulic valves at the front and rear axle transform into precisely metered flows of oil.

Briefly pressing the Sport button next to the AMG instrument cluster changes the characteristics of the AMG sports suspension: the roll angle through fast corners is reduced further, the shock absorbers and springs also respond firmer to promote agility. At speeds of between 65 and 100 km/h, ABC automatically lowers the body by as much as 15 millimetres to reduce wind resistance. If more ground clearance is needed when driving on poor road surfaces, the level of the vehicle can be raised by 40 millimetres at a speed up to 30 km/h by simply pressing a button.

Thanks to so-called loading adjustment, the active suspension control also takes the current vehicle weight into account as part of its calculations. As such the CL 63 AMG is able to achieve identical levels of driving dynamics when in a laden condition too.

AMG high-performance braking system based on ADAPTIVE BRAKE

Based on the ADAPTIVE BRAKE system, the AMG high-performance braking system continues to set the benchmark for stopping power, sensitivity and fade resistance. The front axle of both models features a double floating brake calliper. This technology combines the advantages of a sliding-calliper disc brake – reduced heat transfer to the brake fluid and clear advantages in terms of comfort thanks to the brake lining guide mechanism – with the efficiency of an extra large fixed calliper brake. At the rear, braking is handled by large sliding frame-type callipers. Internally ventilated, perforated composite brake discs at the front and rear with a diameter of 390 and 365 millimetres respectively ensure the shortest stopping distances, remarkable resistance to fading and outstanding sensitivity.

The hydraulic dual-circuit braking system is controlled electronically, permitting the inclusion of numerous driver assistance functions that improve safety and comfort – such as "priming" the braking system in critical situations: if the driver suddenly switches from the accelerator to the brake pedal before emergency braking, ADAPTIVE BRAKE increases the pressure in the brake lines and applies the pads to the brake discs, so that they can grip instantly with full force when the brake pedal is pressed. In wet weather, the system injects regular, short brake impulses to ensure that the film of water on the brake discs is wiped off and the brakes can work as effectively as possible. This automatic brake-drying function is always activated when the windscreen wipers have been in operation for a certain time; the driver does not notice the finely metered braking impulses.

After the CL 63 AMG has been braked to a standstill, briefly pressing the brake pedal a little further is all that is required to activate the HOLD function. The vehicle is then held by the brakes, even if the driver's foot comes off the brake pedal. In this way ADAPTIVE BRAKE prevents the car from rolling forward inadvertently when stopped at traffic lights or stuck in stop-and-go traffic, and from rolling back when facing a slope. The HOLD function is deactivated automatically when the car moves off.

Attractive forged light-alloy wheels

The CL 63 AMG is fitted as standard with AMG double-spoke forged wheels, painted titanium grey and with a high-sheen finish. The wheels are fitted with 255/35 R 20 tyres at the front, and 275/35 R 20 tyres at the rear.

A unique combination of trend-setting driver assistance systems

Throughout the world the CL-Class Coupé is synonymous with the ultimate in active and passive safety systems. A significant part of such systems is also made up of the unique combination of trend-setting camera and radar-based driver assistance systems. The latest innovations are called Active Lane Keeping Assist and Active Blind Spot Assist.

The combination of state-of-the-art assistance and protection systems turn the coupé into "intelligent" partners which are able to "see", "feel", respond "instinctively" to detected dangers and act "on their own initiative" in order to avoid accidents or to reduce the severity of accidents. The vehicle makes use of cameras and radar sensors which look far ahead, observe the conditions around the vehicle, and are able to interpret typical critical situations.

When the CL 63 AMG unintentionally drives over a solid line to the right or left of a lane or on the outside of a bend, the new Active Lane Keeping Assist intervenes and prevents the vehicle from unintentionally leaving the lane. In such cases it applies the brakes to the wheels on the opposite side of the vehicle, using the sensor system of the Electronic Stability Program ESP®.

Similarly, when the new Active Blind Spot Assist detects that changing lanes would be dangerous, it warns the driver by displaying a red warning in the glass of the relevant exterior mirror. If the driver ignores the warning signal and a vehicle in an adjacent lane comes too close, the ESP® takes corrective action by applying the brakes to the wheels on the opposite side of the vehicle.

Adaptive Highbeam Assist is now also included as part of the standard equipment specifications on the CL 63 AMG. The camera-based system can detect vehicles with their lights on which are travelling towards or ahead of the car in which the system is fitted and controls the headlamps such as to ensure the largest possible range without dazzling other drivers.

Night View Assist Plus

The Night View Assist Plus with infrared camera is equipped with a special pedestrian detection function: as soon as the system detects pedestrians on the road ahead, they are highlighted on the display to make them more readily noticeable.

New as standard on the CL 63 AMG: drowsiness detection

Thanks to an innovative technology the CL-Class has a very sensitive antenna for the attention level of the driver, and can warn him in time when he becomes drowsy. The ATTENTION ASSIST drowsiness detection system continuously monitors more than 70 different parameters. Once the evaluation electronics recognise the steering behaviour pattern that typically indicates the onset of drowsiness on the basis of information from the highly sensitive steering angle sensor, a warning signal is sounded and "ATTENTION ASSIST. Break!" appears in the instrument cluster. ATTENTION ASSIST is fitted as standard.

"Electronic crumple zone" for maximum occupant protection

Mercedes-Benz has also improved the long and medium-range radar used by the optional Brake Assist BAS PLUS and DISTRONIC PLUS proximity control. Mercedes-Benz also offers another radar-based system in the form of PRE-SAFE® Brakes. If the driver is distracted and fails to recognise the immediate danger of a rear-end collision, or the warning signals of an assistance system, this system can intervene and brake the vehicle independently. The CL 63 AMG makes use of the latest development stage of this safety system: if the driver fails to react even after automatic partial braking action, the PRE-SAFE® Brakes activate the maximum braking pressure around 0.6 seconds before what is now rec-

ognised as an unavoidable accident – an emergency braking action that can significantly mitigate the severity of the impact. The PRE-SAFE® Brakes therefore act as something like an "electronic crumple zone".

A new look for even more dynamism

More status, more sportiness, more elegance – these are the characteristics now portrayed by the design of the new CL 63 AMG. Thanks to specific modifications to the front and rear, as well as AMG light-alloy wheels, the high-performance coupé now looks even more confident and athletic than ever. The tastefully designed interior, superb workmanship and comprehensive range of standard equipment all help to guarantee an air of exquisite sophistication. New features such as SPLITVIEW for the COMAND APS multimedia system also ensure maximum comfort for the vehicle occupants.

The front section of the CL 63 AMG boasts numerous new design features which give the coupé an even more powerful appearance than ever. The new, arrow-shaped bonnet with its exciting ridged design is the perfect match for powerfully-shaped headlamps, which now come equipped with the Intelligent Light System (ILS) as standard. Other features include bi-xenon headlamps with active light function, Adaptive Highbeam Assist and also AMG-specific LED daytime driving lights in the front apron. A more dynamic appearance is also provided courtesy of the more steeply swept-back radiator grille with larger, chrome-trimmed cooling-air intake. The central Mercedes star is flanked by a distinctive horizontal grille slat.

The rear too has been updated: new taillamps with one-piece red-coloured cover plates and new reversing headlamps next to the licence plate recess on the boot lid match the new AMG rear apron. In addition to the diffuser insert, which is in the same colour as the vehicle body, another visual highlight comes in the form of the newly designed chrome twin tailpipes of the AMG sports exhaust system.

Viewed from the side, the CL 63 AMG stands out thanks to the "V8 BITURBO" lettering on the mudguards.

The tastefully designed interior of the CL 63 AMG boasts an exciting combination of exclusive appointment details. The AMG instrument cluster, for example, now has a new look: after opening the driver's door, the words "AMG V8 BITURBO" are displayed on the screen – a clear invitation to start the new eight-cylinder engine. Also new is the AMG sports steering wheel with silver-coloured aluminium shift paddles, specially shaped grip area and perforated nappa leather around the steering wheel spokes. The multifunction buttons on the left and right enable the driver to select numerous settings and call up information, for example in the AMG main menu: the activated transmission mode is displayed in the middle of the instrument cluster – the currently engaged gear and recommended upshifts are also shown in "M" mode. A new feature is the Controlled Efficiency start/stop function: a green "ECO" symbol in the AMG main menu tells the driver that it is enabled, while a yellow "ECO" symbol indicates that the "start/stop function is disabled".

The AMG main menu also provides the driver with information about the temperature of the engine oil and coolant. With the RACETIMER, the driver can calculate lap times - when on a private racing circuit, for instance. The RACETIMER records the time for the fastest lap, the average and maximum speeds and the lap distance. The AMG instrument cluster in the CL 63 AMG comes with a 320 km/h speedometer scale. One of the most eye-catching features in the interior is the exclusive analogue clock with its "IWC Ingenieur" design in the centre console.

AMG sports seats with PASSION leather upholstery

Standard equipment on the Coupé includes 12-way electrically adjustable AMG sports seats with Memory package, Seat Comfort package with front active multicontour seats including massage and dynamic handling function, with seat heating and ventilation, PRE-SAFE® positioning function and NECK-PRO luxury head restraints. The PASSION leather upholstery boasts sporty, AMG-specific seat fluting and also high-quality AMG badges in the backrests.

The exclusive interior appointments are available in three colour combinations: black/black, cashmere beige/savanna beige and alpaca grey/basalt grey. In conjunction with the three wood trims of high-gloss black ash, high-gloss dark brown burr walnut, and high-gloss light brown burr walnut, a wide variety of options are available to meet every individual taste.

New "AMG V8 BITURBO" greeting on start screen

On opening the driver's door, the driver of the S 63 AMG is also welcomed with the new "AMG V8 BITURBO" start screen in the AMG instrument cluster. The AMG sports steering wheel with silver-coloured aluminium shift paddles, specially shaped grip area and perforated nappa leather around the steering wheel spokes, enables perfect control of the vehicle. The multifunction buttons on the left and right are used to select settings in the AMG main menu: the activated transmission mode is displayed in the middle of the instrument cluster – the currently engaged gear and recommended upshifts are also shown in "M" mode. The new Controlled Efficiency start/stop function is indicated with a green "ECO" symbol in the AMG main menu. When it is disabled, a yellow "ECO" symbol lights up together with the warning "start/stop function is disabled".

The AMG main menu also provides the driver with information about engine oil and coolant temperatures. The integrated RACETIMER can be used to keep track of lap times on a private racing circuit. It records the time for the fastest lap, the average and maximum speeds and the lap distance.

SPLITVIEW technology for COMAND APS now also on the CL 63 AMG

The new SPLITVIEW technology for COMAND APS is also standard for the CL 63 AMG. This innovative display concept allows the driver and front passenger to view different content simultaneously on one and the same screen. While the driver uses the map-based navigation system, for example, the front passenger can be watching the latest film on DVD using headphones, without disturbing the driver.

Dream car with exclusive V12 dynamism

Automobile enthusiasts with a sense of the spectacular have long held them in high regard – the Mercedes-Benz CL 65 AMG. This dream car with the powerful AMG V12 engine and exquisite appointments are synonymous with exclusive performance and exquisite style. The same applies to the revised models which not only feature a number of new visual highlights, but also boast an increase in power, as well as a reduction in both fuel consumption and emissions.

Among engine specialists and car enthusiasts, a twelve-cylinder engine has always represented the crowning glory of the engine builders' craft. A very special example of this luxurious engine series is the AMG 6.0-litre V12 biturbo engine, as used in the CL 65 AMG. Just one glimpse of the engine specifications is enough to reveal why: with a displacement of 5980 cubic centimetres, the AMG V12 generates **463 kW** at 4800 rpm. The maximum torque of 1000 Nm has been electronically limited - from a possible 1200 Nm - to make allowances for the powertrain, and remains constant between 2300 and 4300 rpm.

The performance is evidence of the exceptional power: the AMG V12 model accelerates from 0 to 100 km/h in just 4.4 seconds, and is capable of hitting a top speed of 250 km/h (electronically limited).

	CL 65 AMG
Displacement	5980 cc
Bore x stroke	82.6 x 93.0 mm
Compression ratio	9.0:1
Output	**463 kW** at 4800 rpm
Max. torque	1000 Nm at 2300 - 4300 rpm*
Fuel consumption NEDC combined	14.3 l/100 km
CO_2 emissions	334 g/km
Acceleration 0 - 100 km/h	4.4 s
Top speed	250 km/h*

* electronically limited.

AMG has made a number of additional detailed enhancements to the AMG 6.0-litre V12 biturbo engine for the new model year. The engine experts at AMG achieved the increase in output from **450 kW** to **463 kW** thanks to new exhaust gas turbochargers. The inlet diameter of the compressor housing and also the exhaust gas ducts have been enlarged, and the resulting increase in air throughput, together with the new engine electronics, has resulted in an increase of **13 kW**. The maximum charge-air pressure is 1.5 bars.

The improved engine efficiency is achieved thanks to the new engine electronics and generator management: the kinetic energy generated during each drive phase of the engine and also when braking is used to charge the battery, and not just left to generate heat as would otherwise be the case. In all other operating areas, management of both the on-board electrical system and generator enables the generator to be maintained at a low voltage level.

New piston rings, a modified oil pump and use of a superior coating on the catalytic converters also contribute towards reducing raw exhaust emissions as part of the package of measures. As a result, the CL 65 AMG immediately fulfil the current EU5 emissions standard as well as all of the requirements of the US market (LEV II standard, on-board diagnostics II and lambda sensor diagnostics).

Since its debut in 2003, the AMG 6.0-litre V12 biturbo engine has ranked as one of the most powerful series production engines ever built. The exciting sound emitted by the two chrome twin tailpipes of the AMG sports exhaust system changes according to the driving style and situation: the repertoire ranges from a smooth, refined tone, through to the sonorous AMG-typical twelve-cylinder sound, all of which adds to the intensity of what is a high-performance driving experience.

Know-how from the world of motorsport also with the AMG biturbo V12 engine

One of the characteristic features of the biturbo engine is the sophisticated air/water intercooler. It guarantees high power and torque output under all operating conditions, regardless of the outside temperature. Traditionally all engines are built by hand at Mercedes-AMG in Affalterbach according to the philosophy "one man, one engine" – this is also true of the V12 engine.

In line with the exceptional 1000 Nm of torque, the coupé comes with a reinforced powertrain. Power transfer is handled by the AMG SPEEDSHIFT five-speed automatic transmission, which has three different drive modes.

As is the case with the V8 models, the twelve-cylinder variants also come with the AMG sports suspension based on Active Body Control (ABC) with Torque Vectoring Brake, crosswind stabilisation and loading adjustment system. The characteristics of the AMG sports suspension can be changed by pressing the Sports button – for the driver, this translates into a noticeable reduction in the roll angle when cornering at speed, and also stiffer spring/damper tuning. High levels of maneuverability and smooth control in all driving situations are also guaranteed by the Direct-Steer system with speed-sensitive power steering, which is fitted as standard.

A further increase in active and passive safety

Reliable deceleration performance comes courtesy of the AMG high-performance braking system based on the ADAPTIVE BRAKE system. Internally ventilated, perforated composite brake discs all round, with a diameter of 390 and 365 millimetres respectively, are combined with double floating brake callipers (front) and sliding frame-type callipers (rear) for maximum deceleration.

To enhance active and passive safety, the range of trend-setting camera and radar-based driver assistance systems has also been extended further. As with the V8 model, new features for the CL 65 AMG now therefore include Active Lane Keeping Assist and Active Blind Spot Assist.

The new CL 65 AMG now features an even more exclusive appearance than ever before. An enhanced status is guaranteed thanks to the swept-back front section with profiled bonnet, the enlarged, more angled radiator grille and the powerful headlamps. Included as standard is the Intelligent Light System (ILS) with bi-xenon headlamps, active light function, Adaptive Highbeam Assist and AMG-specific LED daytime driving lights in the front apron. The upsized, chrome-trimmed cooling-air intake adorns a distinctive horizontal grille slat. The newly designed AMG bodystyling is easily recognisable thanks to the distinctive v-shape and the lower cross strut, which on the CL 65 AMG has an exclusive chrome-look finish. This is matched by the AMG rear apron which boasts a diffuser insert which is also finished in chrome. Also new are the taillamps with one-piece red-coloured cover plates and the reversing headlamps placed next to the licence plate recess. Another visual highlight comes in the form of the AMG sports exhaust system with two chrome twin tailpipes featuring a V12 design.

When viewing the vehicle from the side, enthusiasts will discover not only the "V12 BITURBO" lettering on the mudguards, but also AMG double-spoke forged wheels, painted titanium grey and with a high-sheen finish. The wheels are fitted with 255/35 R 20 tyres at the front, and 275/35 R 20 tyres at the rear.

Engine		
Number of cylinders/arrangement		8/V, 4 valves per cylinder
Displacement	cc	5461
Bore x stroke	mm	98.0 x 90.5
Rated output	kW/hp	400/544 at 5500 rpm
Rated torque	Nm	800 at 2000 - 4500 rpm
Compression ratio		10.0:1
Mixture formation		Microprocessor-controlled direct petrol injection, biturbocharging
Power transmission		
Drive system		Standard drive system
Transmission		AMG SPEEDSHIFT MCT 7-speed sports transmission
Ratios	Final drive	2.65
	1st gear	4.38
	2nd gear	2.86
	3rd gear	1.92
	4th gear	1.37
	5th gear	1.00
	6th gear	0.82
	7th gear	0.73
	Reverse	-3.42
Chassis and suspension		
Front axle		Four-link suspension, Active Body Control (active suspension system)
Rear axle		Multi-link independent suspension, Active Body Control (active suspension system)
Braking system		Hydraulic dual-circuit brakes ADAPTIVE BRAKE with brake booster and Brake Assist, internally ventilated and perforated composite disc brakes all-round, electric parking brake, ABS, ESP®
Steering		Rack-and-pinion with speed-sensitive power assistance, steering damper
Wheels		front: 8.5 J x 20; rear: 9.5 J x 20
Tyres		front: 255/35 R 20; rear: 275/35 R 20
Dimensions and weights		
Wheelbase	mm	2955
Track, front/rear	mm	1601/1607
Overall length	mm	5106
Overall width	mm	1871
Overall height	mm	1426
Turning circle	m	11.6
Boot capacity*	l	490
Kerb weight (EC)**	kg	2135
Payload (basis: ready-to-drive state as defined by EC)	kg	450
Perm. GVW	kg	2585
Tank capacity/incl. reserve	l	90/14
Performance and fuel consumption		
Acceleration 0 - 100 km/h	s	4.5
Top speed	km/h	250***
Fuel consumption, NEDC comb.	l/100 km	10.6
CO_2 emissions	g/km	247

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

Engine		
Number of cylinders/arrangement		12/V, 3 valves per cylinder
Displacement	cc	5980
Bore x stroke	mm	82.6 x 93.0
Rated output	kW/hp	463/630 at 4800 rpm
Rated torque	Nm	1000* at 2300 - 4300 rpm
Compression ratio		9.0 : 1
Mixture formation		Microprocessor-controlled petrol injection, biturbo-charging
Power transmission		
Drive system		Standard drive system
Transmission		AMG SPEEDSHIFT 5-speed automatic
Ratios	Final drive	2.65
	1st gear	3.60
	2nd gear	2.19
	3rd gear	1.41
	4th gear	1.00
	5th gear	0.83
	Reverse	-3.17
Chassis and suspension		
Front axle		Four-link suspension, Active Body Control (active suspension system)
Rear axle		Multi-link independent suspension, Active Body Control (active suspension system)
Braking system		Hydraulic dual-circuit brakes ADAPTIVE BRAKE with brake booster and Brake Assist, internally ventilated and perforated composite disc brakes all-round, electric parking brake, ABS, ESP®
Steering		Rack-and-pinion with speed-sensitive power assistance, steering damper
Wheels		front: 8.5 J x 20; rear: 9.5 J x 20
Tyres		front: 255/35 R 20; rear: 275/35 R 20
Dimensions and weights		
Wheelbase	mm	2955
Track, front/rear	mm	1601/1607
Overall length	mm	5106
Overall width	mm	1871
Overall height	mm	1428
Turning circle	m	11.6
Boot capacity**	l	490
Kerb weight (EC)***	kg	2245
Payload (basis: ready-to-drive state as defined by EC)	kg	400
Perm. GVW	kg	2645
Tank capacity/incl. reserve	l	90/14
Performance and fuel consumption		
Acceleration 0 - 100 km/h	s	4.4
Top speed	km/h	250*
Fuel consumption, NEDC comb.	l/100 km	14.5
CO_2 emissions	g/km	346

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