



# <u>The new Mercedes-AMG 53-series models of the CLS, E-Class Coupe</u> <u>and E-Class Cabriolet</u>

# **Press Information**

Perfect combination of performance and design

Affalterbach. Mercedes-AMG is expanding its product range with the addition of three new models and at the same time introducing a new model designation: the 53-series models of the CLS, E-Class Coupe plus E-Class Cabriolet. These models combine powerful performance with sporty style and high efficiency. At their heart lies a new, electrified 3.0-liter engine featuring an exhaust gas turbocharger 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 starteralternator momentarily provides an additional 21 hp of output plus 184 lb-ft of torque and furthermore 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+.

Distinguishing features which are common to the three new 53-series models comprise the twin-blade radiator grille, the front bumper in A-wing design, the AMG-specific side sill panels, the rear bumper with diffuser insert plus the round exhaust tailpipe trim elements in high-gloss chrome.

"With the new 53-series models we are extending our portfolio in a first step towards a hybridized future with a leading-edge 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 48 V 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.

January 15, 2018

#### 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 and emissions. And this move has been a successful one: the AMG CLS 53 accelerates from zero to 60 mph in just 4.4 seconds (est.).

#### 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: 48 V on-board electrical system

The power for the 48 V on-board electrical system is generated by the EQ Boost starter-alternator. The conventional 12 V network is likewise supplied from the new network – using a DC/DC converter. Thanks to the 48 V battery, the overall battery capacity in the vehicle is increased, enabling more electrical energy to be made available – and therefore also allowing innovative functions to be introduced, for example. The 48 V 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 12 V 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 48 V 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 184 lb-ft of torque, recuperation, shifting of the load point, gliding mode and the 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.

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

Visually, the new 53-series models have a distinctive unique look. A distinctive feature common to the models is the twin-blade radiator grille in silver chrome, previously reserved for the V8 AMG 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 intakes have two horizontal fins in silver chrome. AMG-specific side sill panels lend the 53-series models a more dynamic silhouette.

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

### Exterior: additional features of the AMG CLS 53

The front bumper of the AMG CLS 53 features additional side air curtains: the air flows over them in a targeted manner, thereby improving the aerodynamics at the front and reducing the  $C_d$  figure. The front splitter connects seamlessly with the air curtain and reduces lift at the front axle. The outer lines of the radiator grille widen towards the bottom and lend the CLS a powerful appearance. Also making a contribution here are the sharply cut, narrow headlamps.

The exterior mirrors are positioned on the doors, as in the AMG GT models, ensuring an even more dynamic look.

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 comes with 19-inch aerodynamically optimized light-alloy wheels, and as an option 20-inch wheels can be ordered.

### Interior with innovative display concept and operating system

The interior of the new AMG 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, dual high-resolution displays 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 standard "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 him/her 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 his/her 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. The air conditioning and seat heating/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 underscored by the sports seats (featuring an integral seat look in the AMG E53 Coupe and Cabriolet) with AMG-specific seat upholstery layout and AMG badge, red seat belts plus trim elements in carbon 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.

When it comes to interior colors and materials, the three new 53-series models boast significantly more options than the preceding 43-series models. For the appointments, there is a choice of MB-Tex man-made leather/DINAMICA microfiber, nappa leather and *designo* interiors. In addition to classic black with red or grey contrasting topstitching, for the AMG E 53 Coupe and Cabriolet there are now also combinations in black/saddle brown, black/white, black/classic red, *designo* titian red/macchiato beige and *designo* titanium grey/black.

For the AMG CLS 53, alongside the *designo* appointments there is also 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 in a wave design. In the AMG CLS 53, the integral seats with adjustable head restraints have also been redesigned and enhanced in terms of their shape, color and material choice. This includes all aspects relating to optimization of comfort, ergonomics, sportiness and safety.

The rear seat row has also been redesigned with three full-size seats. The seat Page 6 backrest which folds in a 40:20:40 split as well as height-adjustable head restraints enable greater flexibility and everyday practicality.

# Short shift times, high efficiency: the AMG SPEEDSHIFT TCT 9G transmission

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, 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.

# 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 also able to rely on high handling stability and a high level of safety under all conditions, in the dry, in the wet or in snow. 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 tractionoriented 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 tap of a finger: AMG DYNAMIC SELECT

With the five DYNAMIC SELECT drive modes "Eco," "Comfort," "Sport," "Sport+" and "Individual," the driver can tailor the characteristics of the new 53-series models even more to suit personal preferences at the press of a button. 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 manually, if desired.

## 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; 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 53-series models maintain 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 electromechanical speed-sensitive steering features a variable ratio in the 53-series models. 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.

## Fade-resistant and reliable: the compound braking system

The large braking system with internally ventilated compound brake discs provides reliable and quick deceleration of the 53-series models. Perforated and internally ventilated brake discs measuring 14.6" x 1.4" with 4-piston fixed calipers and AMG lettering are fitted at the front, with internally ventilated discs measuring 14.2" x 1.0" and single-piston floating calipers at the rear.

## Wellness on long-distance journeys: ENERGIZING comfort control

The optional ENERGIZING comfort control is available for all 53 models. It 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 AMG 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 Braking Assist, ATTENTION ASSIST, plus the occupant protection system PRE-SAFE<sup>®</sup>. New and also part of the standard specification is PRE-SAFE<sup>®</sup> 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 Assist DISTRONIC, Active Steering Assist, Active Speed Limit Assist, Active Braking Assist with Cross-Traffic Function, Evasive Steering Assist, Active Blind Spot Assist, Active Lane Keeping Assist and PRE-SAFE<sup>®</sup> 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. In addition, the Driving Assistance Plus package includes PRE-SAFE<sup>®</sup> 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 AMG CLS 53 adopts the enhanced 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 for the AMG CLS 53

From the time of market launch, the exclusive Edition 1 will be available for the AMG CLS 53 which boasts unique interior treatments. 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.

The new 53-series models celebrate their world premiere on January 15, 2018 as part of the American International Auto Show in Detroit and will go on sale in the U.S. by late 2018.

# 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

Page 9

with 15 model lines ranging from the sporty CLA-Class four-door coupe to thePage 10flagship S-Class and the Mercedes-AMG GT S.

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 <u>www.mbusa.com</u>, <u>www.mbsprinterusa.com</u> and <u>www.smartusa.com</u>.

Accredited journalists can visit our media site at <u>www.media.mbusa.com</u> and follow us on Twitter <u>@MBUSAnews</u>.

# Technical data at a glance

| Mercedes-AMG CLS 53 | Mercedes-AMG E53 Coupe |
|---------------------|------------------------|
|---------------------|------------------------|

| Engine                       | 3.0L 6-cylinder in-line engine                      | 3.0L 6-cylinder in-line engine                      |
|------------------------------|---|---|
|                              | with exhaust gas turbocharger                       | with exhaust gas turbocharger <sup>11</sup>         |
|                              | and electric auxiliary compressor                   | and electric auxiliary compressor                   |
| Displacement                 | 2,999 сс  | 2,999 сс  |
| Output                       | 429 hp at 6,100 rpm                                 | 429 hp at 6,100 rpm                                 |
| Add. output with EQ Boost    | 21 hp   | 21 hp   |
| Peak torque                  | 384 lb-ft at 1,800-5,800 rpm                        | 384 lb-ft at 1,800-5,800 rpm                        |
| Add. torque with EQ Boost    | 184 lb-ft   | 184 lb-ft   |
| Drive system                 | AMG Performance 4MATIC+ all-                        | AMG Performance 4MATIC+ all-                        |
|                              | wheel drive with fully variable torque distribution | wheel drive with fully variable torque distribution |
| Transmission                 | AMG SPEEDSHIFT TCT 9G                               | AMG SPEEDSHIFT TCT 9G                               |
| Weight (DIN/EC)              | ТВА   | ТВА   |
| Acceleration 0-60 mph (est.) | 4.4 s   | 4.3 s   |
| Top speed                    | 130 mph*  | 130 mph*  |

|                              | Mercedes-AMG E 53 Cabriolet  |
|------------------------------|--|
| Engine                       | 3.0L 6-cylinder in-line engine<br>with exhaust gas turbocharger<br>and electric auxiliary compressor |
| Displacement                 | 2,999 сс   |
| Output                       | 429 hp at 6,100 rpm  |
| Add. output with EQ Boost    | 21 hp  |
| Peak torque                  | 384 lb-ft at 1,800-5,800 rpm   |
| Add. torque with EQ Boost    | 184 lb-ft  |
| Drive system                 | AMG Performance 4MATIC+ all-<br>wheel drive with fully variable<br>torque distribution               |
| Transmission                 | AMG SPEEDSHIFT TCT 9G  |
| Weight (DIN/EC)              | ТВА  |
| Acceleration 0-60 mph (est.) | 4.4 s  |
| Top speed                    | 130 mph*   |

\*electronically limited

Please note that the information in this release is preliminary and subject to change.