



Mercedes-Benz



The new 2019 Mercedes-AMG G63

Press Information

New appearance of the high-performance G-Class

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Affalterbach. The new 2019 Mercedes-AMG G63 has undergone the greatest change in its history - while remaining true to its well-proven virtues. The G63 underpins its unique position among performance off-road vehicles with a powerful drive system, an AMG-developed suspension, AMG-specific transmission modes and a new interior with optimal widescreen cockpit. The basis for the hallmark AMG Driving Performance both on and off road is provided by the 577 hp handcrafted AMG 4.0-liter V8 biturbo engine, rear-biased all-wheel drive (40:60) with three differential locks, extremely fast-shifting 9-speed automatic transmission, double wishbone independent front suspension and adaptive adjustable damping. The reinterpretation of the unmistakable design creates strong highlights with the AMG-specific radiator grille, flared wheel arches, striking side pipes on the exhaust system and wheels up to 22-inches in diameter.

"The new AMG G63 brings driving performance to the segment of unadulterated off-road vehicles in unexpected form. It was important for us to tie in with the original character on account of the cult status the G63 enjoys with our customers and fans. The vehicle has nevertheless reached a completely new dimension in terms of technology with the handcrafted AMG 4.0-liter V8 biturbo engine as well as in combination with the off-road characteristics, the agility and the vehicle dynamics achieved," explains Tobias Moers, CEO of Mercedes-AMG GmbH. "This applies to the entire G-Class model series. Mercedes-AMG is responsible for their suspension and chassis development as well as V8 competence."

Proven to be powerful: the handcrafted AMG 4.0-liter V8 biturbo engine

The handcrafted AMG 4.0-liter V8 biturbo engine now also replaces the previous 5.5-liter V8 biturbo engine in the G63. It generates 577 hp in this model, and delivers a maximum torque of 627 lb-ft. This is available across a

wide rev range between 2,500 and 3,500 rpm, and provides a sense of effortless superiority. The G63 completes a sprint from zero to 60 mph in just 4.4 seconds (est.), 0.9 seconds faster than the previous model. This dynamic performance is maintained up to the limited maximum speed of 137 mph, or 149 mph with the AMG Driver's package.

The two turbochargers are not positioned on the outside of the cylinder banks, but inside the cylinder "V." Advantages: a compact engine design, spontaneous response of the turbochargers and low exhaust emissions thanks to optimal airflow to the near-engine catalysts. The eight-cylinder delivers its power with muscular torque in all engine speed ranges, combined with maximum efficiency for low fuel consumption and emission figures.

Two twin scroll turbochargers are used for optimal response. The housing is divided into two parallel flow channels. Combined with two separate exhaust ducts in the exhaust manifold, this makes it possible to control the exhaust gases on the turbine wheel separately. The exhaust gas from the first and fourth cylinders of the cylinder bank is fed into one duct, that from the second and third cylinders to the other duct. The aim is to prevent the individual cylinders from having mutually adverse effects on the gas cycle. This reduces the exhaust gas back pressure and improves gas exchange. The results are increased output by virtue of improved cylinder charging with fresh mixture, more torque at low revs and very fast response times.

Other engine features include modified pistons, optimized intercooling and extensive software upgrades. Spray-guided direct gasoline injection with piezo injectors, an all-aluminum crankcase, four-valve per cylinder design with camshaft adjustment, air-water intercooling, alternator management, ECO start/stop function and gliding mode have all been retained.

AMG Cylinder Management cylinder deactivation system

For more efficiency, Mercedes-AMG has equipped the V8 engine in the G63 with the AMG Cylinder Management cylinder deactivation system. In the partial-load range, cylinders two, three, five and eight are deactivated, which significantly lowers the fuel consumption.

When the driver has selected the "Comfort" transmission driving mode, the cylinder deactivation system is available in the wide engine speed range from 1,000 to 3,250 rpm. The AMG main menu on the instrument cluster informs

the driver whether the cylinder deactivation system is in use and whether the engine is presently operating in the partial or full-load range. The transition from four to eight-cylinder operation is fast and imperceptible, so that the passengers do not experience any loss of comfort whatsoever.

AMG SPEEDSHIFT TCT 9G transmission with shorter shift times

The AMG SPEEDSHIFT TCT 9G transmission is used in the G63. This has a model-specific software application to achieve very short shift times. The multiple downshift function allows more spontaneous bursts of speed, while the double-declutching function in "Sport" and "Sport Plus" transmission modes makes for an even more emotional driving experience. Defined engine manipulation makes for even faster gear changes.

The wide ratio spread allows a choice of a very sporty or a very comfortable and efficient driving experience. In all transmission modes the G63 moves off in first gear so as to ensure a dynamic sprint from a standstill whenever required. The DIRECT SELECT lever has been repositioned as a steering column stalk.

"Manual" mode can be selected using a separate switch. The gear changes are based on the selected transmission mode, and the driver can now change gear using the paddles on the steering wheel. Moreover, the transmission stays in the selected gear and does not automatically shift up when the engine speed reaches the limit.

Enhanced agility and traction: AMG Performance 4MATIC all-wheel drive

The standard-specification AMG Performance 4MATIC all-wheel drive features rear-biased torque distribution with a front/rear split of 40 to 60 percent. This configuration ensures greater agility on the road and improved traction during acceleration. In the preceding model the distribution was a neutral 50:50.

The off-road reduction gear has been developed further for operation on difficult terrain and helps to ensure that the G63 is able to master even more demanding off-road stretches. The reduction ratio of the transfer case is now 2.93 : 1, considerably higher than in the preceding model (2.1 : 1). This assists moving off on extreme uphill gradients in particular, as the torque at the drive wheels is significantly increased.

The off-road reduction gear can be engaged via the LOW RANGE switch at speeds of up to 25 mph. The gear ratio of the transfer case is then changed from 1.00 in HIGH RANGE to 2.93. It is possible to switch from LOW RANGE to HIGH RANGE at speeds of up to 44 mph.

The new, intelligent multiplate clutch behaves like an automatically controlled locking differential. It ensures that the new G63 remains maneuverable for longer when off-road. The advantage is that the driver has more scope before having to engage the differential locks manually.

When the driver operates the switch for the center differential lock, the multiplate clutch switches to a 100% locking effect. The locks at the front and rear axle differentials are differential locks with a dog clutch and a 100% locking effect. All the locks can be engaged individually while on the move in LOW RANGE: firstly center, then rear axle and finally front axle differential.

The differential locks now respond to the switches even more rapidly, as they are electromechanically actuated and fully networked. An LED and the central driver's display indicate which lock is currently active.

With adaptive adjustable damping: AMG-developed suspension

The new G63 performs even better when off-road, and on the road it is more dynamic and comfortable than its predecessor. The agile driving impression is substantially due to the suspension system, which has been completely redesigned by Mercedes-AMG and features coil springs all-round. For the first time the front axle has an independent, double wishbone suspension; a rigid axle with a five-link suspension is used at the rear.

The components of the double-wishbone front suspension are directly mounted to the ladder-type frame without a subframe. The attachment points of the lower wishbone are positioned as far up as possible. This arrangement ensures good drivability both on and off the road. A strut tower brace, known as a suspension bridge, now connects the front strut towers, which increases the torsional rigidity of the ladder-type frame.

At the rear, the new axle is guided with four longitudinal control arms on each side and a Panhard rod. This makes normal driving on the road even more comfortable. When off-road, the rear spring compression of 3.2 inches and rebound of 5.6 inches plus the ground clearance of 9.5 inches to the rear axle

gear help to ensure a safe ride even in extreme situations. To reduce body roll, the G63 has additional transverse stabilizers at the front and rear axles.

The AMG suspension with adaptive adjustable damping is standard equipment. This fully automatic, electronically controlled system adjusts the damping at each wheel to the current requirements. This improves driving safety and ride comfort. The damping is adjusted individually for each wheel, and depends on the driving style, the road surface and the selected suspension setting. The ideal operating point can be selected at all times on the basis of extensive information relating to acceleration or vehicle speed, for example.

Via a switch on the center console, the driver can choose between three different sets of damping characteristics, namely "Comfort," "Sport" and "Sport+," and thus individually influence the driving experience from very comfortable to taut and sporty.

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

The electromechanical speed-sensitive steering installed in the G63 for the first time has a variable ratio to ensure precise and authentic feedback. The steering servo assistance is reduced at high speeds and continuously increases at low speeds. This means that comparatively little steering force is required at low speeds and that the best possible control over the vehicle is maintained at high speeds. Steering power assistance is available in a choice of two modes - "Comfort" or "Sport." The relevant characteristics are automatically activated depending on the selected AMG DYNAMIC SELECT driving mode, or can be personalized in "Individual" mode. In "Sport" the driver receives more direct feedback about the driving status.

Characteristics at the touch of a finger: AMG DYNAMIC SELECT

For the first time in the history of the Mercedes-AMG G-Class, the driving characteristics can be individualized at the touch of a finger with five on-road and three off-road driving modes.

With the five AMG DYNAMIC SELECT on-road modes "Slippery," "Comfort," "Sport," "Sport+" and "Individual," the characteristics range from efficient and comfortable to very sporty. Key parameters such as the response of the engine, transmission, suspension and steering are modified in the process. Independently of the AMG 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. If required, the stages of the adaptive adjustable suspension can be selected as well.

Three off-road modes - "Sand," "Trail," and "Rock" - are available when driving off the beaten track. These are accessed using the switch in the center console for activation of the central differential lock, and can then be selected with the AMG DYNAMIC SELECT rocker switch. "Trail" allows maximum performance on soft, muddy or slippery surfaces. "Sand" modifies the parameters for sporty dynamics and the best possible grip and steerability on sandy stretches or desert sand dunes. "Rock" is the mode for extremely demanding, rocky terrain with severe axle articulation and frequent lifting of one or more wheels.

All the driving modes, both On Road and Off Road, are visualized in the instrument cluster and in the central media display. Deselection of all the locks returns the setting to the on-road driving modes.

Bodyshell: made for the toughest jobs

The basis for the enormous off-road capabilities of the G63 is provided by a torsionally rigid ladder-type frame of high-strength steel and a mounted body of composite construction. This design is considerably more robust and suitable for off-road operations than a unibody construction. As the lowest point of this construction, the frame ensures a low center of gravity and protects the major assemblies, fuel tank and exhaust system during ground contact when driving over obstacles.

Another development aim was to reduce the weight of the body. Using a digital prototype, the developers simulated the operating life of individual components and assemblies to determine where lighter materials could be used without compromising durability, operating life and quality.

The result is a new material mix: the bodyshell consists of various grades of steel. The fenders, hood and doors are made of aluminum. To be able to retain the door hinges and handles typical of the G-Class, the developers modified these to suit the new aluminum design. The A and B-pillars are made of high-strength steel in view of their load-bearing function.

Thanks to this intelligent design, it was possible to increase the torsional rigidity of the frame, body shell and body mounts by around 55 percent, from 6537 to 10,162 Nm/deg. This provides the ideal basis for maximum handling precision. Comfort has also benefited: vibrations and noise in the interior have been considerably reduced.

The roof is no longer spot-welded, but instead connected to the body structure by laser welding - resulting in better surface quality and higher body strength. The flange width was retained, but optimized for the new welding method. For the first time, all the fixed windows are adhesive bonded to the body. This not only increases the torsional rigidity of the body, but also makes the window frames more resistant to corrosion.

Off-road capability was the main focus during further development of the doors. The side and rear doors have a protective foil cladding on the inside, so that no water can enter when fording watercourses. The surfaces of the frame, vehicle floor and body are specially treated to withstand even the most severe influences – whether water, snow, salt or sand.

Sporty and distinctive: the exterior design

Unmistakable design features give the new AMG G63 its unique appearance: the boxy silhouette, the proud hood, external door hinges, round headlamps, mounted direction indicators, robust door handles, muscular protective strips with inserts in high-gloss black with a silver AMG emblem, the exposed spare wheel on the rear door with a stainless steel cover and three-dimensional Mercedes star.

The front section of the G63 is characterized by the AMG-specific radiator grille and the AMG bumper with large side air inlets and trim in matt iridium silver. The headlamps, indicators and tail lights are in LED High Performance technology as standard. This lighting consumes less energy and has a particularly long service life.

LED headlamps are also available. These each use 84 individually controlled high-performance LED modules to illuminate the road surface automatically with an extremely bright and precisely directed beam of light, without dazzling other road users. That is because this individual control allows the light distribution of the left and right headlamps to be adapted separately, quickly

and dynamically to suit the changing situation on the road. This improves safety for all road users.

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With the enhanced fog light function, LED technology also allows the headlamp on the driver's side to illuminate that side more actively, while masking any rise in the light beam. As a result, the outer half of the road surface is more brightly illuminated and back-glare from the light reflected from the fog is reduced.

New light functions for enhanced safety

Adaptive Highbeam Assist Plus also benefits from the performance of LED technology: thanks to a larger number of pixels, the dark areas in the light distribution are more precise and dynamic than ever before in partial main-beam mode, and the main beam can be used for longer than before. Once switched on, the system always makes the best possible headlamp range available.

Mercedes-AMG G63 with further distinctive features

Exclusive exterior characteristics of the G63 include the flared front and rear wheel arches, which create space for the larger, wider wheels, running boards as standard, distinctive trim elements on the front and rear bumpers and metallic paintwork as standard. Other distinguishing features include the "V8 BITURBO" lettering on the front fenders and the Mercedes-AMG G63 model badge on the rear door. Red brake calipers, perforated brake discs and available 22-inch wheels round off the exterior design.

The G63 looks particularly striking with the optional AMG Night package. In this case the headlamps, tail lights, indicator lenses, rear window and rear side windows are dark-tinted. The Obsidian Black paint finish on the exterior mirror housings, the spare wheel ring and the trim in the front and rear bumpers, together with the black-painted underbody guard, emphasizes the confident appearance which is rounded off by matte-black 21 or 22-inch wheels.

Sporty look with model-specific details: the interior design

The new G63 has been given a completely newly designed, modern interior that echoes specific exterior features. The shape of the round headlamps is reflected in the side air vents, and in the shape of the indicators in the tweeters

on the dashboard. Hallmarks of the G63 also include the grab handle in front of the front passenger and chrome-highlighted switches for the three differential locks.

The completely redesigned dashboard has analogue tubes as dial instruments as standard. Optionally the fully digital Widescreen Cockpit with virtual instruments directly in the driver's field of vision and a central display above the center console can be ordered. The two 12.3-inch displays visually blend into a single unit beneath a shared glass cover. The driver is able to choose from three different views – "Classic," "Sporty" and "Progressive" – and access the required information individually.

The new dimensional concept in the interior benefits all the occupants. The increase in length (+4 inches), width (+4.8 inches) and height (+1.6 inches) provides the basis for a significantly more airy and spacious impression than in the previous model. The most important interior dimensions at a glance:

Description	Difference
Legroom in the front	+1.5 in
Legroom in the rear	+5.9 in
Shoulder room in front	+1.5 in
Shoulder room in rear	+1.1 in
Elbow room in front	+2.7 in
Elbow room in rear mm	+2.2 in

The rear seats can be folded down in a ratio of 40, 60 or 100 percent. The seats in the G-Class are equipped as standard with numerous convenience functions and are ergonomically designed, thus providing enhanced seating comfort and lateral support. Features include the Memory function for the driver's seat, seat heating front and rear, as well as luxury head restraints in the front.

This ride comfort can optionally be boosted still further with the Active Multicontour Seat package. In addition to the special multicontour seats, this encompasses such features as various massage functions, climate-controlled seats, and fast seat heating. This variant also offers electrically adjustable lumbar supports for the driver and front passenger. The side sections of the seat cushions and backrests of the active multicontour seats include integrated

air chambers that fill or empty continuously depending on the driving dynamics, thus providing better support for the seating positions of driver and front passenger and offering more lateral support during cornering.

New AMG Performance steering wheel as standard

Extremely sporty design, a grippy shape with a heavily contoured rim and intuitive operation are the key attributes of the new AMG Performance steering wheel in nappa leather, which is standard equipment. It has a flattened lower section and is perforated in the grip area. The steering wheel shift paddles are galvanized.

Using the integrated touch control buttons, the functions of the instrument cluster (left) and multimedia system (right) can be intuitively controlled by horizontal and vertical swiping movements of a finger. As in the S-Class, the settings for Active Distance Assist DISTRONIC and cruise control are made in the left control panels. The control panels on the right are used to activate the voice control and telephone, and to regulate the sound volume, music selection and other functions of the multimedia system.

Typical AMG V8 exhaust note

The dual-flow exhaust system features side pipes below the rear doors. The twin tailpipes in high-gloss chrome emit the typical AMG V8 sound. The standard exhaust flap can be adjusted in two stages using the switch in the center console or depending on the selected driving mode, to make the exhaust note more sporty or discreet.

Exclusive "Edition 1" special model at market launch

On market launch the new Mercedes-AMG G63 will also be available as an exclusive "Edition 1" special model: the combination of equipment details turns the special model into the flagship of the range. Painted in *designo* Night Black Magno with contrasting matte Graphite Grey sports stripes along the vehicle sides and finished with exterior mirror housings have a decorative red stripe, the Edition 1 boasts a distinctive look. The AMG Night package with features in high-gloss black reinforces the muscular impression. The matte black 22-inch forged wheels in a cross-spoke design have red-painted rim flanges.

The red highlights continue in the interior: They can be found on numerous interior features, for example as red contrasting topstitching on the dashboard support, center console, door panels and rear seats. The front sport seats in Black/Red Pepper nappa leather also show this striking color. The sport seats feature a dynamic diamond pattern with red contrasting topstitching as standard. The carbon-fiber trim has highlights in Red Pepper, and the Performance steering wheel in DINAMICA microfiber with a flattened lower section is embellished with red contrasting topstitching and a red 12 o'clock marking.

The new, 2019 Mercedes-AMG G63 will celebrate its world premiere at the Geneva Motor Show on March 6, 2018, with a pricing announcement and US market launch to take place in early 2019.

Technical data at a glance

	2019 Mercedes-AMG G63
Engine	Handcrafted AMG 4.0-liter V8 Biturbo
Displacement	3,982 cc
Output	577 hp at 6,000 rpm
Peak torque	627 lb-ft. at 2,500-3,500 rpm
Drive system	AMG Performance 4MATIC all-wheel drive with rear-biased torque distribution of 40:60
Transmission	AMG SPEEDSHIFT TCT 9G
Weight	TBA
Acceleration 0-60 mph	4.4 s (est.)
Top speed	137 mph 149 mph (Driver's package)

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