

AMG racetrack performance combined with superb everyday practicality

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# The new Mercedes-AMG GT: Driving performance for sports car enthusiasts

The first Mercedes was a racing car and its most recent successor carries this heritage forward: with the new Mercedes-AMG GT, the Mercedes-AMG sports car brand is moving into a new, top-class sports car segment for the company. The GT is the second sports car developed entirely in-house by Mercedes-AMG. Its front mid-engine concept with transaxle and the intelligent aluminium lightweight construction form the basis for a highly dynamic driving experience. Its likewise newly developed AMG 4.0-litre V8 biturbo engine underscores the hallmark AMG driving performance. The first sports car engine with internally mounted turbochargers ("hot inside V") and dry sump lubrication is configured in two output ratings: as a GT with 340 kW (462 hp) and as a GT S with 375 kW (510 hp). The new GT combines driving dynamics and first-class racetrack performance with superb everyday practicality and efficiency that sets new standards in the segment.

It has everything you would expect from an authentic Mercedes-AMG sports car – from the characteristic styling and thoroughbred motorsport technology to the optimum weight distribution. The drive system tailored consistently to driving dynamics perfectly complements this set-up. The centrepiece of the Mercedes-AMG GT, the new 4.0-litre V8 biturbo, responds instantly with extreme power right from low revs and delivers outstanding performance.

Top figures such as 3.8 seconds from zero to 100 km/h and a top speed of

310 km/h, combined with the outstanding driving dynamics will undoubtedly translate into extremely fast laps on the racetrack.

At the same time, the two-seater is a straightforward, comfortable and reliable companion for everyday motoring thanks to its practical tailgate, easily accessible luggage compartment, high level of comfort on long journeys and the extensive range of Mercedes-Benz Intelligent Drive assistance systems.

**Press Information** 

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	Mercedes-AMG GT S	Mercedes-AMG GT	
Displacement	3982 сс	3982 cc	
Output	<b>375 kW</b> (510 hp)	<b>340 kW</b> (462 hp)	
	at 6250 rpm (6000-6500 rpm*)	at 6000 rpm	
Max. torque	650 Nm	600 Nm	
	at 1750-4750 rpm (1750-5000 rpm*)	at 1600-5000 rpm	
Fuel consumption	9.4 l/100 km	9.3 l/100 km	
NEDC combined			
CO <sub>2</sub> emissions	219 g/km	216 g/km	
Efficiency class	G	G	
Kerb weight (according to EC)	1570 kg** / 1645 kg***	1540 kg** / 1615 kg***	
Power-to-weight ratio	3.08** / 3.22*** kg/hp	3.33** / 3.49*** kg/hp	
Acceleration 0-100 km/h	3.8 s	4.0 s	
Top speed	geed 310 km/h**** 304 km/h****		

<sup>\*</sup> In conjunction with AMG DYNAMIC PLUS package; \*\* Ready-to-drive condition (fuel tank 90% full, without driver and luggage); \*\*\* Ready-to-drive condition (fuel tank 90% full, with driver (68 kg) and luggage (7 kg); \*\*\*\* Electronically limited.

The combination of aluminium spaceframe, V8 biturbo engine with dry sump lubrication, seven-speed dual clutch transmission in transaxle configuration at the rear axle, locking differential, sports suspension with aluminium double-wishbone suspension and the low kerb weight of 1540 kilograms delivers racetrack performance. The concept with front mid-engine and transmission in transaxle configuration makes for a beneficial weight distribution of 47 to 53 percent between the front and rear axle. In conjunction with the vehicle's low centre of gravity this translates into extremely agile handling and permits high cornering speeds. With a favourable power-to-weight ratio of 3.08 kilograms per hp, the Mercedes-AMG GT S self-confidently lines up alongside the very best in its segment. The GT also demonstrates that economy and high-performance need not be mutually exclusive with its fuel consumption of 9.3 litres per 100 kilometres (NEDC combined).

#### Exterior design: sporty emotion and sensual purity

The new Mercedes-AMG GT embodies sportiness and emotion as an expression of sensual purity. The long bonnet with its pronounced powerdomes, the greenhouse which has been moved far back, the large wheels and broad tail end make up the distinctive looks. The trimmed cabin results in muscular shoulders –

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the hallmark Mercedes "Coke bottle" shape – which lends the car its extremely powerful stance. All modern Mercedes feature this "Coke bottle" theme, the GT being the most extreme example. Positively arched surfaces give the Mercedes-AMG GT its sensuous character and the appearance of a sculpture. Viewed from the side, the dome-shaped, arched roof line and the frameless doors are eye-catching features. The surfaces and lines of the side wall flow into the rear-end with a dramatic tapered effect. The side air outlets, each with two fins, represent a typical, styling feature of Mercedes-Benz sports cars.

The creative interaction of diverse design elements lends the coupé a superior, self-confident front: the three-dimensional diamond radiator grille, with central Mercedes star, a broad louvre and AMG lettering, stands in the centre of the front end. LED High Performance headlamps with stylised "eyebrows" as daytime running lamps, side lights and indicators, as well as three separate high-beam reflectors lend the GT its characteristic look. The A-wing with front splitter in the lower third of the front apron, a characteristic feature of AMG vehicles, makes the sports car appear low-slung and wide.

#### Broad shoulders for an emotional overall appearance

With its base areas, broad shoulders and expressive tail light graphics, the rear area creates an emotional overall appearance. The licence plate bracket is located in the lower part of the bumper, allowing the Mercedes star to be placed prominently on the smooth-surfaced boot lid. Added to which there is an extendable rear aerofoil, which is perfectly integrated into the body while the car is at a standstill. The black diffuser insert with tailpipes integrated into the bumper and the trim strip in matt iridium silver inspired by the A-wing in the front create a visual sense of lightness across the entire tail end.

#### Interior: sensuality, emotion and perfection

The interior design also embodies maximum emotion and sensual purity. Radically low, sporty proportions create a unique sense of spaciousness. Clearly drawn components and their authentic materials underscore the dynamic character and create instant excitement: anyone opening the door discovers an exciting interplay between the deep, sloping dashboard and a dominant, arched high centre console, a design which evokes emotions and impresses with its perfection.

Outstanding precision and a superior quality feel thanks to the finest materials with superb workmanship are also apparent on the sports seats, the performance steering wheel and the instrument cluster. The most important control for sports car fans is located in the AMG DRIVE UNIT on the left-hand side: the button for starting the engine, which is labelled "Engine Start Stop" and illuminated in red.

#### The newly developed AMG 4.0-litre V8 biturbo engine

The new high-performance engine springs to life at the push of a button: even the sound as the engine starts up brings you out in goose pimples. The 4.0-litre V8 biturbo engine was developed specifically for the GT. The innovative eight-cylinder engine as the newest member of the BlueDIRECT engine family boasts outstanding power delivery, performance figures on a par with motor racing, lightweight construction as well as high efficiency and environmental compatibility. It features the brand's hallmark emotive V8 engine sound, along with immediate response and high pulling power. The GT sets new benchmarks in terms of efficiency, too. With its 4.0-litre V8 biturbo engine, it already meets the Euro 6 emissions standard, including the maximum particulate emissions level that takes effect in 2016.

#### First sports car engine with 'hot inside V' and dry sump lubrication

The new AMG V8 engine has two turbochargers which are not mounted on the outside of the cylinder banks but rather inside the V configuration – experts call it a 'hot inside V'. The benefits are a compact engine design, optimum response from the turbochargers and low exhaust gas emissions thanks to optimum air flow for the close-coupled catalytic converters. The dry sump lubrication also ensures the oil supply even with high lateral forces and allows the engine to be installed lower, thus moving the centre of gravity closer to the road and forming the basis for high lateral acceleration. The new Mercedes-AMG V8 biturbo engine is the world's first sports car engine with 'hot inside V' and dry sump lubrication.

# Performance exhaust system with fully variable exhaust flaps

The Mercedes-AMG GT S is equipped as standard with an AMG performance exhaust system with fully variable exhaust flaps. This allows the driver to vary the engine sound: depending on the selected DYNAMIC SELECT mode the driver may experience the V8 with a focus on comfort and relaxed, long-distance journeys or with a more powerful, emotive, motorsport-inspired touch. The AMG

DRIVE UNIT includes a separate button to control the exhaust flaps directly. The selectable exhaust system is also available as an option for the Mercedes-AMG GT.

#### A tradition of hand-built excellence: "one man, one engine"

The 4.0-litre V8 biturbo engine is produced in Affalterbach according to the "one man, one engine" principle. In the AMG engine shop, highly qualified fitters assemble the engines by hand according to the strictest quality standards – as confirmed by the AMG engine plate bearing the engine technician's signature. "One man, one engine" ties in with Mercedes-AMG's unique motorsport genes, which exude innovative strength by virtue of the technology transfer from racing series – from Formula 1 to the DTM to the involvement in customer racing with the SLS AMG GT3.

# Seven-speed dual clutch transmission in transaxle configuration

When it comes to the power transmission of the new GT the Mercedes-AMG engineers rely on a combination of front mid-engine and seven-speed dual clutch transmission in transaxle configuration at the rear axle – this layout has already successfully established itself in the SLS AMG. The weight distribution with its ratio of 47 percent (front) to 53 percent (rear) benefits from this configuration. The efficiency, shift speed and precision of the AMG SPEEDSHIFT DCT 7-speed sports transmission have been further optimised for usage in the new sports car. Thanks to the larger gear ratio spread, the pronounced torque plateau of the V8 turbo engine can be used optimally. The drivetrain's overall design is ideal for an uncompromising sports car. At the same time, the exacting requirements in terms of everyday practicality, noise level, ride comfort and fuel consumption have been met.

#### Electronic rear-axle locking differential as standard in the GT S

The GT comes as standard with a mechanical rear-axle locking differential which ensures outstanding traction and superb driving safety in all driving conditions. The GT S is fitted as standard with an electronically controlled rear-axle locking differential, which is likewise integrated into the compact transmission housing. The electronic function provides even more sensitive, faster control than the mechanical solution, thus pushing the limits of handling dynamics even further. It not only further improves the traction of the driven wheels, but also increases the cornering speeds at the limits. The system operates

with a variable locking effect in acceleration and overrun mode, and is perfectly tuned to the various driving conditions and road surface friction coefficients.

#### **Double-wishbone suspension from motorsport**

Driving dynamics and comfort on long journeys; racetrack performance and everyday practicality: the new Mercedes-AMG GT delivers on all counts. A great deal of attention was paid to the seamless integration of all mechanical and electronic systems during design, development and testing. From the suspension, through 3-stage ESP<sup>®</sup>, locking differential, steering, aerodynamics and tyres to the brakes – only successful precision engineering and the concerted networking of individual specialist disciplines serves to produce the required results and thus the exhilarating sports car driving experience, characterised by superb precision and clear feedback.

The AMG GT offers the perfect conditions: it uses the technological DNA of the Mercedes-Benz SLS AMG, one of the most successful sports cars in recent years. Thanks to the optimum weight distribution of 47 percent (front) to 53 percent (rear), the vehicle's low centre of gravity and the selected suspension layout, the driver benefits from precise steering response, formidable agility, low inertia when changing direction, and outstanding traction. Double-wishbone suspension is used at the front and rear – a technology adopted straight from motorsport.

Wishbones, steering knuckles and hub carriers on the front and rear axle are manufactured entirely out of forged aluminium in order to reduce the unsprung masses. The double-wishbone concept locates the wheel firmly, with minimal elastic movements. The high camber and track rigidity not only results in high cornering speeds, but also provides the driver with an optimum road feel when cornering at the limit. An extremely direct connection of the shock absorber on the rear hub carrier reduces vibrations and undesirable wheel load fluctuations. Highly neutral behaviour and defined, predictable responses at the tyre grip limit were important development objectives for the dynamic handling experts at Mercedes-AMG.

# Mercedes-AMG GT S with electronically controlled damping

The AMG RIDE CONTROL sports suspension with electronically controlled damping comes as standard on the Mercedes-AMG GT S, or as an option for the GT. The driver can adjust the damping characteristics at the push of a button in the AMG DRIVE UNIT or by using the AMG DYNAMIC SELECT drive modes. Three stages are available: "Comfort", "Sport" and "Sport plus".

The speed-sensitive sports steering features a variable steering ratio: this enhances vehicle handling and agility at low speeds while maintaining driving safety at high speeds. The power assistance is a particular highlight: it responds not only depending on the given road speed, but also according to the current lateral acceleration and the selected AMG DYNAMIC SELECT drive mode. As a result, the driver has a perfect feel for the vehicle thanks to the direct feedback from the road. The standard-fit 3-stage ESP® with the "ESP ON", "ESP SPORT Handling Mode" and "ESP OFF" functions works in perfect unison with the locking differential and is tuned optimally to the outstanding driving dynamics and safety requirements.

#### AMG DYNAMIC PLUS package available as an option for the GT S

The AMG DYNAMIC PLUS package further augments dynamism and agility. It is available exclusively for the GTS and includes dynamic engine and transmission mounts, for example. The engine and transmission mounts assume an important function in the case of a transaxle design: soft mounts improve comfort since they provide more effective decoupling of noise and vibration. Handling and agility benefit, however, from an overall stiffer mount set-up. Mercedes-AMG resolves these conflicting objectives using dynamic mounts, which adjust their stiffness continuously and instantly to the respective driving conditions and handling.

A specific engine application in the DYNAMIC SELECT "RACE" drive mode and in the manual "M" transmission mode makes the GT S even more dynamic. The package also includes tauter spring and damper tuning, more negative camber at the front axle as well as an adapted speed-sensitive sports steering system. The performance steering wheel in black DINAMICA microfibre and yellow highlights in the instrument cluster round off the AMG DYNAMIC PLUS package.

#### Optional ceramic high-performance composite brake system

Excellent deceleration characteristics and high fade resistance come courtesy of the high-performance composite brake system – on the GT with internally ventilated, perforated 360-millimetre brake discs all-round; on the GT S with discs measuring 390 millimetres in diameter at the front, to cope with the higher performance, as well as red brake callipers. A ceramic high-performance composite brake system is available for both models as an option. Its advantages: lower weight, longer service life and even better fade resistance thanks to the ceramic brake discs with a diameter of 402 millimetres at the front and 360 millimetres at the rear.

#### Forged wheels and sports tyres as an option

As standard, the GT is shod in 10-spoke light-alloy wheels, 9 x 19 front and 11 x 19 rear, with 255/35 R 19 and 295/35 R 19 tyres. On the GT S the dimensions are 9 x 19 (front) with 265/35 R 19 tyres and 11 x 20 (rear) with 295/30 R 20 tyres. Numerous design and colour variants are optionally available for both models. In combination with the AMG DYNAMIC PLUS package, specially developed sports tyres (Michelin Pilot Sport Cup 2) are available for the GT S as an option – ideal for aspiring racing drivers on closed-off circuits.

# Aluminium spaceframe with intelligent material mix

Mercedes-AMG has gone for an intelligent material mix on the body of the GT. Chassis including greenhouse and body are made of light alloy, the boot lid of steel and the front deck of magnesium. This extremely light element at the front reduces the inertia ahead of the front axle, thus improving the vehicle's agility. Over 90 percent of the weight-optimised spaceframe is made of aluminium components.

The bodyshell weighs 231 kilograms – a benchmark figure in the sports car segment. There were three key objectives during the design and development of the bodyshell structure: optimum strength, low centre of gravity and low weight. The high bending and torsional strength of the entire design enables extreme linear and transverse forces from the powertrain and suspension to be absorbed and transferred. Unwanted flexibility is thus reduced, with the vehicle responding rigidly and directly. As a result, the driver experiences a sports car with

maximum dynamism that responds with excellent precision. The aluminium spaceframe also provides the basis for outstanding passive safety.

The Mercedes-AMG GT is produced at Mercedes-Benz in Sindelfingen. The 4.0-litre V8 biturbo engine is manufactured at Mercedes-AMG in Affalterbach.

#### Aerodynamics for high balance and effective cooling

Aerodynamically, the GT was developed with one clear objective: transferring the high power to the road to enhance driving dynamics and handling safety at medium and high speeds. Thanks to the aerodynamic configuration, critical driving situations can be avoided – such as with a sudden evasive manoeuvre at high speed. The front-end design reduces lift to the desired level and helps route air to and from the cooling modules. The flow of cooling air also improves brake performance with the help of special brake cooling ducts.

The design of the clad underfloor guarantees optimum exhaust airflow from the oil cooler in the underfloor area and effective airflow for the rear diffuser. As an active component of the aerodynamics, the Mercedes-AMG GT comes with an extendable rear aerofoil that is integrated into the design silhouette. In combination with rear diffuser, the vehicle's roadholding is enhanced.

#### Active and passive safety of the very highest calibre

The brand with the star boasts hallmark active and passive safety of the very highest calibre. The Mercedes-AMG GT adopts numerous Intelligent Drive assistance systems that are familiar from the new S-Class. Standard equipment includes COLLISION PREVENTION ASSIST PLUS, ADAPTIVE BRAKE, ATTENTION ASSIST and the tyre pressure monitoring system. Optional extras available include:

- Adaptive Highbeam Assist
- PRE-SAFE® system
- PARKTRONIC
- Reversing camera
- Lane Tracking package including Lane Keeping Assist and Blind Spot Assist
- Blind Spot Assist
- Traffic Sign Assist (included in COMAND Online)

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The standard-fit restraint systems not only include three-point seat belts with belt tensioners and belt force limiters, but also front airbags, combined thorax/pelvis sidebags, windowbags and kneebags, for the driver and front passenger respectively.

# Interior with outstanding perceived quality and superb everyday practicality

The sportily designed cockpit in carbon-fibre look provides information with two classic circular instruments in a 2-tube look and a 320 km/h speedometer scale. The performance steering wheel with its three-spoke design sits perfectly in the hand: it comes with aluminium shift paddles, 12-o'clock marking and a steering wheel rim in black nappa leather with flattened bottom section. The sports seats in ARTICO man-made leather/black fabric with integral head restraints and AMG lettering provide optimised lateral support when driving dynamically.

The DYNAMIC SELECT Controller, the buttons for starting the engine, the 3-stage ESP® and, when specified, the electronic damper control are located on the left in the AMG DRIVE UNIT. The volume control as well as the buttons for the manual transmission drive mode, the ECO start/stop function and, again when specified, the selectable exhaust system are fitted on the right-hand side. The driver operates the seat heating, PARKTRONIC, the hazard warning lights and, depending on the model variant and equipment, the extendable rear aerofoil using the buttons in the top control panel in the roof frame.

The GT S comes with even more sophisticated equipment and appointments, including:

- Instrument cluster with 360-km/h speedometer scale and red colour highlights
- Performance steering wheel, black nappa leather/DINAMICA microfibre
- AMG emblem embossed in the centre armrest (not in conjunction with upholstery in ARTICO man-made leather/black DINAMICA microfibre)
- Upholstery in ARTICO man-made leather/black DINAMICA microfibre

#### Trim in matt silver fibreglass or in black diamond

As an alternative to the standard-fit Interior Silver Chrome package, the customer can choose from various other packages. Carbon-fibre trim elements are available in a choice of matt and high-gloss finish. Highlights include the trim in

matt silver fibreglass and the Interior Black Diamond package, all offered for the first time.

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The superb everyday practicality of the Mercedes-AMG GT is also expressed in the airy feeling of spaciousness. In addition, the good all-round visibility and the high headroom demonstrate that sporty dynamism and comfort on long journeys are not mutually exclusive – not necessarily a given in this segment. The luggage compartment capacity of 350 litres will hold two golf bags either lengthways or crossways. The large boot lid makes loading easy; an integral retractable luggage cover comes as standard.

The "Edition 1" is a particularly sporty Mercedes-AMG GT S: the extraordinary composition of sporty exterior and interior details is sure to attract everyone's attention (see "Interior and appointments").

#### Market launch of the AMG GT to commence in the first quarter of 2015

The market launch will commence with the Mercedes-AMG GT S in Europe in the first quarter of 2015, with the GT and other markets to follow.

#### **Prices\*:**

Mercedes-AMG GT S	€134,351
Mercedes-AMG GT S "Edition 1"	€148,512
Mercedes-AMG GT	€115,430

<sup>\*</sup>Prices for Germany including 19% VAT

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# "Handcrafted by racers: a sports car in its purest form."

"With the new Mercedes-AMG GT, we are venturing out into a challenging sports car segment with its top-class competitive field. This is an incentive and motivation for us at the same time to prove to sports car enthusiasts around the world the kind of performance that AMG is capable of."

November 2014

Prof Dr Thomas Weber, Member of the Board of Management of Daimler AG, responsible for Group Research & Mercedes-Benz Cars Development

"With the new GT we are positioning Mercedes-AMG even more aggressively than to date as a dynamic sports car brand. With its technological substance, the Mercedes-AMG GT fulfils our high standards with regard to driving dynamics, agility and sportiness. The new GT is the second sports car developed fully independently by Mercedes-AMG. The car is manufactured according to the motto 'Handcrafted By Racers' – which perfectly encapsulates our heritage and our spirit."

Tobias Moers, Chairman of the Board of Management of Mercedes-AMG GmbH

"The new Mercedes-AMG GT is a sports car in its purest form. Breathtaking proportions, powerfully sculpted surfaces and flowing lines turn the new AMG into a contemporary sports car which embodies the spirit of the glorious Mercedes sports cars. The GT is a consummate combination of beauty and intelligence."

Gorden Wagener, Vice President Design Daimler AG

"The combination of selectively variable engine and transmission mounts and a transaxle drivetrain is unique. Mercedes-AMG is once again promoting leading-edge technology, thus affirming our aspirations in terms of driving performance." 

Jochen Hermann, Head of Overall Vehicle Engineering at 

Mercedes-AMG GmbH

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# Powerful, innovative and efficient

The AMG 4.0-litre V8 biturbo engine is a new development and the pounding sporty heart of the new Mercedes-AMG GT. The strengths of this innovative eight-cylinder include outstanding power delivery, systematic lightweight construction and high efficiency and environmental compatibility. With an output range from 340 kW (462 hp) to 375 kW (510 hp) and maximum torque from 600 to 650 newton metres, the new AMG V8 delivers performance at motor racing level. The new sports car engine follows an impressive V8 tradition, which it continues with trailblazing features.

November 2014

Powerful V8 engines have long been a core competence at AMG, the performance brand of Mercedes-Benz. The plant in Affalterbach spawns innovative and exciting high-performance engines. On this occasion, Mercedes-AMG GmbH is entirely responsible for both development and production.

# First sports car engine with 'hot inside V' and dry sump lubrication

The new AMG V8 engine has two turbochargers which are not mounted on the outside of the cylinder banks but rather inside the V configuration – experts call it a 'hot inside V'. The benefits are a compact engine design, an optimum response and low exhaust gas emissions. Dry sump lubrication allows the engine to be installed lower, which moves the centre of gravity closer to the road and forms the basis for high lateral acceleration. The M178 (in-house designation) from AMG is thus the world's first sports car engine with hot inside V and dry sump lubrication. With a dry weight of 209 kg the new AMG V8 is also the lightest engine in its competitive segment.

	Mercedes-AMG GT S	Mercedes-AMG GT	
Cylinder arrangement	V8	V8	
Cylinder angle	90°	90°	
Valves per cylinder	4	4	
Displacement	3982 сс	3982 cc	
Bore x stroke	83.0 x 92.0 mm	83.0 x 92.0 mm	
Cylinder spacing	90 mm	90 mm	
Compression ratio	10.5 : 1	10.5 : 1	
Output	<b>375 kW</b> (510 hp)	<b>340 kW</b> (462 hp)	
_	at 6250 rpm	at 6000 rpm	
	(6000-6500 rpm*)		
Output per litre	94.2 kW/litre	85.4 kW/litre	
	128 hp/litre	116 hp/litre	
Max. torque	650 Nm	600 Nm	
	at 1750-4750 rpm	at 1600-5000 rpm	
	(1750-5000 rpm*)		
Torque per litre	163.2 Nm/litre	150.7 Nm/litre	
Maximum engine speed	7200 rpm	7200 rpm	
Maximum charge pressure	1.2 bar	1.1 bar	
Peak pressure	140 bar 140 bar		
Engine weight (dry)	209 kg	209 kg	
<b>Emissions standard</b>	Euro 6	Euro 6	

<sup>\*</sup> in conjunction with AMG DYNAMIC PLUS package

#### Superior and finely metered power delivery

As the latest member of the Mercedes-Benz BlueDIRECT engine family, the AMG M178 stands out by virtue of its superior power delivery and motorsport-inspired performance. It boasts an emotive and unmistakable enthralling AMG V8 engine sound, along with immediate response and high pulling power. The torque curve is synonymous with good driveability: The GT S delivers its maximum torque of 650 newton metres in a wide engine speed range from 1750 to 4750 rpm – and up to 5000 rpm if the customer opts for the AMG DYNAMIC PLUS package.

The new V8 also stands out with its precise power output, which is easily a match for a naturally aspirated engine. This is a development objective that the AMG engine specialists put their heart and soul into and which underlines their considerable expertise. The driver truly appreciates the AMG engine, particularly in M or Race mode in the selectable drive modes, thanks to its linear power delivery, which makes it significantly easier to handle the vehicle at the limits. To ensure this the engine electronics even take the current driving status into account, as well as any lateral forces.

With a displacement of 3982 cc, in terms of technology the V8 is closely related to the AMG 2.0-litre turbo engine in the A 45 AMG, CLA 45 AMG and GLA 45 AMG, which is presently the most powerful, series-production four-cylinder engine in the world. Both AMG engines have the same bore/stroke ratio, guaranteeing high revving ability. Mixture formation comes courtesy of third-generation direct petrol injection with piezo injectors. The highly efficient and economical AMG 4.0-litre, V8 biturbo engine meets the Euro 6 emissions standard and the maximum particulate emissions level that takes effect in 2016.

# Cylinder bore liners featuring NANOSLIDE® technology

The aluminium crankcase is produced using sand casting technology and features a closed-deck design. This ensures extreme strength while keeping the weight as low as possible, and allows high injection pressures of up to 140 bar. The cylinder bore surfaces feature NANOSLIDE® technology which makes them twice as hard as conventional cast-iron linings.

Daimler researchers began work on NANOSLIDE® in 2000, and the technology has so far been used in over 200,000 engines since 2006. The world's first unit with NANOSLIDE® technology was an AMG V8: the M156 as the extremely successful predecessor to the new AMG 4.0-litre biturbo. The application scope for this multi-award-winning technology has been continually widened. Since the start of the 2014 race season it is also being deployed in the new Mercedes F1 V6 turbo engine.

'Spectacle honing' is another measure to reduce friction and therefore consumption: in this complex process, the cylinder liners receive their mechanical surface treatment when already bolted in place. A jig resembling spectacles is bolted to the crankcase in place of the cylinder head mounted later. Any cylinder warpage that might occur during final assembly is therefore taken into account or eliminated as the cylinder liners are honed. This has advantages in terms of both durability and oil consumption. The new AMG V8 has forged aluminium pistons featuring a lightweight design and high strength. A low-friction piston ring package reduces fuel and oil consumption.

The rigidity of the crankcase was optimised to improve the engine acoustics and vibration comfort. Integrating the timing case into the crankcase casting allowed connecting points to be minimised and rigidity to be increased. This particularly benefits the noise level of the chain drive.

Great attention was also paid to increased rigidity in the engine and transmission mounting areas. Thanks to these design measures, the V8 sports car engine meets the highest standards in terms of acoustics and vibrations.

#### Dry sump lubrication for high lateral acceleration

Thanks to the use of dry sump lubrication, a conventional oil pan is redundant. Already installed low down, it was thus possible to lower the engine by a further 55 millimetres. This lowers the vehicle's centre of gravity, which is ideal for a sports car with extremely high lateral dynamics. In addition to improved agility, dry sump lubrication ensures direct oil extraction from the crankcases for optimal engine lubrication, even at high speeds on bends.

In the M178, dry sump lubrication deploys a suction pump, a pressure pump and an external oil tank with a capacity of 12 litres. The system circulates nine litres of engine oil in total. The oil suction pump extracts oil directly from the crankcases, cylinder heads and valve body assembly and delivers it to the external oil tank at a pump output of up to 250 litres per minute. Lubricant remains there for just five seconds before being pumped back around the high-performance engine. Efficient engine oil suction improves engine efficiency further. On-demand control of the pressure oil pump takes into account the engine rpm, temperature and load characteristics stored by the control unit. In line with the lightweight construction principle, the oil sump is produced in plastic.

#### Cylinder heads with zirconium alloy

The cylinder heads in the AMG 4.0-litre, V8 biturbo engine are made of a zirconium alloy for maximum temperature resistance and thermal conductivity. Four overhead camshafts control a total of 32 valves. Camshaft adjustment on the inlet and outlet side enables an excellent response and optimises the gas cycle for each operating point. Optimised valve springs and the low-friction valve gear with cam followers deliver further fuel savings.

A combination of biturbocharging and direct petrol injection with spray-guided combustion increases thermodynamic efficiency, thereby reducing fuel consumption and exhaust gas emissions. Particularly fast and precise piezo injectors spray the fuel at high pressure into eight combustion chambers. Multiple injection occurs on-demand, ensuring a homogeneous fuel/air mixture. The delivery of fuel is electronically controlled and fully variable for a fuel pressure between 100 and 200 bar.

#### Biturbocharging with 'hot inside V'

Unlike the previous, conventional approach, both exhaust gas turbochargers in the new M178 are located inside the 'hot inside V' configuration rather than on the outside of the cylinder banks. The advantages of this layout are that the V8 engine is considerably more compact, which enables optimum weight distribution between the front and rear axle, as well as the low installation position. The 'hot inside V' also optimises the supply of fresh air to both exhaust gas turbochargers. Electronically controlled blow-off valves ensure a very immediate and direct response. The maximum charge pressure is 1.2 bar for the GT S and 1.1 bar for the GT. The turbochargers reach a maximum rotational speed of 186,000 rpm. For combustion purposes, 2.3 times more oxygen atoms are channelled into the turbocharged engine than would be the case in a naturally aspirated engine. The two firewall catalytic converters in thin-walled ceramic material positioned down from the exhaust gas turbochargers respond very quickly due to their close-coupled configuration. In conjunction with two metal, underfloor catalytic converters, the M178 delivers effective emission control.

# Performance exhaust system with fully variable exhaust flaps

Excitement, emotive appeal and recognition value: at Mercedes-AMG engine sound is an important objective during the development process. A performance exhaust system with fully variably controlled exhaust flaps is used in the GT S. The selectable exhaust system is also available as an option for the Mercedes-AMG GT.

This allows the driver to vary the engine sound: Depending on the selected driving mode, the driver experiences the new AMG V8 with a focus on comfort and relaxed, long-distance journeys or with a more emotive, motorsport-inspired touch. The M178 has its own tonal characteristics which denote the GT's

membership of the AMG family, but also clearly distinguish it from all other high-performance cars.

There is an exhaust flap on either side of the rear silencer which is actuated variably on a logic-controlled basis depending on the transmission mode, driver's power requirement and the engine speed. At low loads and engine rpm the flaps remain closed. This causes the exhaust gases to cover a longer distance and flow through an additional damping element so that the engine sound is pleasantly subdued and irritating frequencies are effectively suppressed. When the driver accelerates, the flaps progressively open so that although some of the exhaust gases cover the longer, acoustically dampened distance, most travel the shorter distance. Under full load at higher engine speeds, both flaps are fully opened, thus allowing the occupants to enjoy the powerful sound typical of an AMG V8. This means that one can hear and feel the performance potential residing in the eight-cylinder biturbo engine.

#### Efficient cooling of charge air, water and engine oil

For optimum power output even when outside temperatures are high, Mercedes-AMG uses indirect air/water intercooling. With optimum air and water flow, the intercoolers have a separate, two-stage low-temperature water circuit. The water-flow intercoolers ensure that the charge air compressed and heated to up to 140 degrees Celsius by the turbochargers is effectively cooled before entering the combustion chambers, and remains at a constant, low level of max. 25 degrees Celsius above the ambient temperature even under full load. A large radiator at the car's front end ensures controlled cooling of the water circulating in the low-temperature circuit. Extremely short charge-air ducting makes for optimum responsiveness.

The engine coolant is cooled on the particularly effective cross-flow principle, featuring two high-temperature radiators connected in parallel and a particularly efficient 1 kilowatt suction fan. A three-stage thermostat ensures rapid heating of the coolant.

Because the water pump is driven by a timing chain rather than the usual poly-V belt, a simplified belt drive system is used with less clamping force. This results in less loss of drive power. With a rated flow of 420 litres, the water pump conveys the equivalent of more than two full bathtubs per minute.

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An external engine oil cooler in the front apron of the Mercedes-AMG GT helps with heat management for the V8 engine. It is located in the front apron for aerodynamic efficiency. A two-stage, controlled oil pump circulates the engine oil. This varies the flow rate depending on load and engine speed requirement, thereby benefiting fuel economy. At high engine speeds more than 1.0 litre of engine oil per second flows through the oil lines and ducts. To save on weight numerous oil and water lines are made of aluminium.

Sophisticated solutions are also deployed on the engine's periphery:

- Separate passive air duct for the turbochargers subject to high levels of thermal stress
- Dynamic engine and transmission mounts for excellent lateral dynamic performance and a high level of comfort (optional)
- Auxiliary units efficiently powered by two short, low-friction belts with four grooves. Intelligent positioning of auxiliary units virtually neutralises belt forces on the crankshaft.
- Two-mass flywheel with centrifugal pendulum prevents torsional vibration on the drive line for a smooth ride.
- ECO start/stop function and alternator management to save fuel.

# High-tech test benches for engines with over 470 kW

There are nine high-tech test stations in Affalterbach on which AMG engines with an output exceeding 470 kW and more than 1000 Nm undergo dynamic testing. These test facilities enable a very wide range of road and environmental conditions to be simulated to reproduce any conceivable type of operational scenario. Cold or hot starting, mountain passes, stop-and-go traffic or fast laps on the North Loop of the Nürburgring – the engines are required to give their utmost. Even different intake air temperatures and densities can be computer controlled.

#### Function and endurance benchtesting for the highest quality

The goal of the detailed bench tests is to verify the performance of all engine components, including the peripheral units. All measurement data for the engines examined are systematically compared and evaluated using reproducible test methods. The functional tests are accompanied by endurance testing. To ensure the very highest quality standards over their entire operating life, new AMG engines are required to undergo several thousand hours of endurance testing.

Simultaneously the test engines undergo intensive testing in practical trials. The standardised test programme at Mercedes-AMG includes all climatic zones and route profiles, from the icy cold of northern Sweden to the merciless heat of Death Valley (USA), from fast laps on the North Loop of the Nürburgring and high-speed circuits in Nardo (Italy) and Papenburg to stop-and-go city traffic during rush hour. This programme makes the very highest demands on the day-to-day practicality, reliability and long-term durability of new engine generations.

# A tradition of hand-built excellence: "one man, one engine"

The AMG 4.0-litre V8 biturbo engine is produced in Affalterbach according to the "one man, one engine" principle. In the AMG engine shop, highly qualified technicians assemble the high-performance engines by hand according to the strictest quality standards. The technician's signature on the AMG engine plate attests to this exclusive type of engine production. It guarantees the highest quality and technology transfer from motorsport – covering the spectrum from Formula 1 through DTM to customer racing activities.

Power transmission Page 21

# Transaxle and dual clutch

When it comes to the power transmission of the new GT the Mercedes-AMG engineers rely on the combination of a front mid-engine and a seven-speed dual clutch transmission in transaxle configuration at the rear axle – this layout has already proven highly successful in the SLS AMG. The weight distribution with its ratio of 47 percent (front) to 53 percent (rear) benefits from this configuration. The AMG SPEEDSHIFT DCT 7-speed sports transmission has been further improved in terms of efficiency, gearshift speed and precision for use in the new sports car. In 'sailing' mode the engine is decoupled from the powertrain, allowing an effective reduction in fuel consumption.

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Thanks to the larger gear ratio spread, the pronounced torque plateau of the V8 turbo engine can be used to optimum effect. The powertrain's overall design is ideal for an uncompromising sports car. At the same time the power transfer meets the exacting requirements in terms of everyday practicality, noise level, ride comfort and fuel consumption.

To transfer the driver's shift commands even more directly, communication between the engine and transmission has been fundamentally revised. This means that the previous limits of shift performance and the response time have been substantially increased. The driver can individually tailor the GT to their wishes with the aid of AMG DYNAMIC SELECT. Various modes are available: "C" (Comfort), "S" (Sport), "S+" (Sport Plus) and – completely new – "I" (Individual). The manual "RACE" drive program reserved exclusively for the GT S optimally adjusts the shift strategy of the dual clutch transmission to the needs of racetrack usage – shortest shift speeds and highly emotional engine sound are included. By pressing the "M" button, the driver can activate the manual transmission mode in any drive mode.

The driver selects the different transmission modes using the AMG DYNAMIC SELECT controller on the left of the centre console (see also section AMG DYNAMIC SELECT). In addition to the transmission's gearshift strategy, the transmission modes influence the engine characteristics including the exhaust system, suspension setup, steering, 3-stage ESP®, the ECO start/stop function incl. sailing function and the extending rear aerofoil.

In "Comfort" mode the focus is on low engine speeds in the highest possible gears. Given a corresponding driving style, the transmission performs very early upshifts to the next-highest gears – benefiting not only 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. Comfort also means comfortable gearshifts and a "soft" accelerator response setup for smooth power delivery. The ECO start/stop function is only available in "C" mode.

The integrated "sailing function" for a further reduction in fuel consumption is a completely new feature in this transmission mode: when the driver releases the accelerator in a speed range from 60 to 160 km/h, the clutch of the DCT transmission is disengaged. This reduces the engine speed to idling level, and the driving resistance is reduced by the compression and frictional forces of the engine on the overrun.

The engine and transmission are considerably more agile in "Sport" mode. Accelerator movements are more directly translated into drive power, and to this end the downshifts are faster. The gears are revved higher and the gearshifts are faster than in "Comfort" mode. In "Sport +" mode the gearshifts are even faster than in "Sport". The same applies to manual transmission mode "M", which the driver activates using a separate button.

#### Manual transmission mode "M": No automatic gearshifts

In manual transmission mode "M" the driver benefits from the high torque of the V8 biturbo engine. There is no automatic downshift under full load and on 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 - ideal for a highly dynamic driving style on the racetrack.

In "M" mode the instrument cluster shows the current gear. Shortly before reaching the red section on the speedometer, the driver is also given a visual prompt to change to the next-highest gear by an upshift recommendation showing white/yellow/red LEDs. This means that a particularly sporty driver can use the superior performance potential to its fullest extent. When approaching the lower rev limit, for example when braking the vehicle, there is an automatic downshift to the next-lowest gear also in "M" mode.

The engine control unit also partially suppresses cylinders in the sporty transmission modes under full load: precisely interrupting ignition and injection for brief periods leads to even faster gearshifts than before. This is accompanied by a particular engine note during every gearshift. Using kickdown, the transmission also allows fast, spontaneous multiple downshifts e.g. from seventh to fourth gear, or from fifth to second gear.

The driver experiences the automatic double-declutch function in "Sport", "Sport +", RACE (only GT S) and in the manual "M" mode. Each manual or automatic downshift is accompanied by precisely metered double-declutching, of increasing intensity from "Sport" to "Sport +" and up to RACE (only GT S). This not only heightens the emotional experience for the driver: the double-clutch function reduces load cycle reactions, which has a positive effect when braking for bends and increases handling safety in wet or slippery conditions.

#### Momentary "M" mode and RACE START for even more dynamism

With "momentary M mode", in modes C, S or S+ the driver is able to activate manual transmission mode by nudging the "up" or "down" shift paddle once, without removing a hand from the wheel. In momentary M mode, when in any of the automatic transmission modes the driver experiences the dynamism and performance obtainable from manual gearshifts, with the addition of automatic upshifts and downshifts. This allows the driver to enjoy the vehicle's impressive performance to the full.

Momentary M mode combines the best of two worlds: whichever transmission mode is active at the time, the combination of automatic gearshifts and manual shifts using the shift paddles offers an impressively broad scope of variability. The system deactivates momentary M mode and reverts to the mode last activated ("C", "S" or "S+") fully automatically, based on the current driving situation.

The RACE START function provides maximum dynamism: The driver is able to activate it when stationary, by using the left foot to operate the brake pedal with "ESP SPORT Handling Mode" switched on. When the RACE START programme is preset on the AMG DYNAMIC SELECT controller, a confirmation prompt appears in the instrument cluster. The driver must now confirm the RACE START function by pulling the "UP" shift paddle once, floor the accelerator and release the brakes. The optimum start-off engine speed is set and the GT accelerates. Sensitive control by the dual clutch transmission responds to the current traction of

the tyres, ensuring that wheel slip with RACE START remains within the maximum friction coefficient of the tyres. The driver does not need to shift the gears manually, as the AMG transmission changes them automatically with extremely short shift times.

# Torque tube with carbon-fibre drive shaft between the engine and transmission

The AMG SPEEDSHIFT DCT 7-speed sport transmission forms a fixed unit with the V8 engine – with the torque tube serving as the connecting element. The engine and the transmission over the rear axle are rigidly connected to each other, and are mutually supporting. This brings decisive advantages in terms of vehicle dynamics and ride comfort, as this sophisticated solution makes it possible to configure the entire powertrain with far less play. The 1.71-metre long torque tube consists of a one-piece, sand-cast housing and weighs less than 27 kilograms.

Inside the tube, a drive shaft rotates at the engine speed. As in racing cars, the shaft is made of carbon fibre. This high-tech material has a major advantage: despite its high strength, the carbon-fibre shaft tips the scales at only 3.9 kilograms. This means that the drive shaft, which has to transfer a full 650 newton metres of torque from the engine to the dual clutch transmission, is much lighter than an equivalent shaft made from steel. A centrifugal pendulum integrated into the two-mass flywheel eliminates oscillations and vibrations to improve ride and noise comfort – especially in the fuel-efficient lower engine speed range.

#### Electronic rear-axle locking differential as standard on the GTS

The GT comes as standard with a mechanical rear-axle locking differential which ensures outstanding traction and superb driving safety in all driving conditions. The GT S is fitted as standard with an electronically controlled rear-axle locking differential, which is likewise integrated into the compact transmission housing. The electronic function provides even more sensitive, faster control than the mechanical solution, thus pushing the limits of handling dynamics even further.

Not only is the traction of the drive wheels improved further: cornering speeds at the physical limits also increase, and handling stability during slaloms or lane-changes at high speed is optimised. The system operates with a variable locking effect in acceleration and overrun mode, and is perfectly tuned to the various driving conditions and road surface friction coefficients. The engineers

developed an efficient cooling system for the AMG SPEEDSHIFT DCT 7-speed sport transmission. The heat exchangers located in the car's rear end are integrated into the highly effective low-temperature water circuit of the V8 engine.

#### AMG DYNAMIC PLUS package available as an option for the GT S

The Mercedes-AMG GT comes as standard with powertrain damping. A specially tuned damper reduces undesirable rolling motion of the entire powertrain including the transaxle transmission, thus substantially improving comfort and agility.

The AMG DYNAMIC PLUS package further augments dynamism and agility. It is available exclusively for the GT S and includes dynamic engine and transmission mounts. Using these dynamic mounts means that a separate powertrain damper can be omitted. The engine and transmission mounts assume an important function in the case of a transaxle design: soft mounts improve comfort since they provide more effective decoupling of noise and vibration. Handling and agility benefit, however, from an overall stiffer mount set-up.

Mercedes-AMG resolves these conflicting objectives using dynamic mounts, which adjust their stiffness continuously and instantly to the respective driving conditions and handling. This function is performed by special control electronics – the so-called AMG Chassis Controller. The ACC detects driving situations on the basis of CAN data, is connected to the electronic rear-axle locking differential and thus ensures optimum, balanced driving dynamics. AMG has gone a step further when implementing this technology: the engine and transmission mounts are even actuated independently of each other. The advantage: this innovative solution provides an additional substantial improvement in driving precision and lateral dynamics. Instead of conventional rubber mounts between the engine/transmission and the vehicle body, the

GT S has mounts containing a magnetic fluid. Depending on the driving situation, a magnetic field is generated in this fluid containing iron particles by an electrical coil. This changes its viscosity.

The driver feels more connected to the vehicle when driving dynamically, as there is more feedback and the steering response is more direct. All in all the driver benefits from more precise vehicle control: minimised mass movements of the major assemblies mean less corrective action to be taken by the driver when steering into bends.

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A special engine application in AMG DYNAMIC SELECT "RACE" mode makes the GT S even more dynamic. Both the maximum output and maximum torque are available over a wider engine speed range. The package also includes tauter suspension tuning thanks to raised spring and damping characteristics, more negative camber at the front axle as well as an adapted sports speed-sensitive steering system. Thus the driver benefits from better performance with optimised handling. The performance steering wheel in black DINAMICA microfibre as well as yellow highlights in the instrument cluster round off the AMG DYNAMIC PLUS package.

# Racetrack performance and everyday practicality

Driving dynamics and comfort on long journeys; racetrack performance and everyday practicality: the new Mercedes-AMG GT delivers on all counts. A great deal of attention was paid to the seamless integration of all mechanical and electronic systems during the design, development and testing. Whether it is the suspension, 3-stage ESP®, locking differential, steering, aerodynamics, tyres or brakes – only the successful precision engineering and concerted networking of individual specialist disciplines serve to produce the required results and thus the exhilarating sports car driving experience, characterised by superb precision and clear feedback.

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The Mercedes-AMG GT offers the perfect conditions for this: it uses the technological DNA of the Mercedes-Benz SLS AMG, one of the most successful sports cars in recent years. Thanks to the optimum weight distribution of 47 percent (front) to 53 percent (rear), the vehicle's low centre of gravity and the selected suspension layout, the driver benefits from precise steering response, formidable agility, low inertia when changing direction, and outstanding traction. Highly neutral behaviour and defined, predictable responses at the tyre grip limit were important development objectives for the dynamic handling experts at Mercedes-AMG.

A wheel-locating double-wishbone suspension is used at the front and rear - a technology adopted straight from motorsport. Wishbones, steering knuckles and hub carriers on the front and rear axle are manufactured entirely out of forged aluminium in order to reduce the unsprung masses.

The double-wishbone concept locates the wheel clearly with minimal elastic movements. The high camber and track rigidity not only results in high cornering speeds, but also provides the driver with an optimum road feel when cornering at the limit. This manifests itself in the form of excellent lateral dynamics and handling stability at high speeds, and good compensation of external influences such as crosswinds, undulations or fluctuating friction coefficients. An extremely direct connection of the shock absorber on the rear hub carrier reduces vibrations and undesirable wheel load fluctuations.

# Mercedes-AMG GT S with electronically controlled damping

The AMG RIDE CONTROL sports suspension with electronically controlled damping comes as standard on the Mercedes-AMG GT S, or as an option for the GT. The driver can adjust the damping characteristics at the push of a button in the AMG DRIVE UNIT or by using the AMG DYNAMIC SELECT drive modes. Three stages are available: "Comfort", "Sport" and "Sport plus".

- "Comfort": Suitable for day-to-day driving, both urban and for comfortable long-distance tours.
- "Sport": Configured for tracks such as the North Loop of Nürburgring for a highly dynamic and fast style of driving on undulating, humped and irregular surfaces, also for very sporty driving on country roads.
- "Sport Plus": Optimum mode for modern racetracks with very level surfaces, for example Hockenheimring. Suitable for corresponding driver training and competition on Track Days.

Thanks to the AMG RIDE CONTROL sport suspension, the driver benefits from exhilarating driving dynamics and the long-distance comfort that is a hallmark of the brand. The continuously active damping system improves handling safety and ride comfort, with individual, practically instant damper adjustment for each wheel – depending on the speed, driving style, road surface and the selected suspension setting.

The speed-sensitive sports steering of the GT features a variable steering ratio: it enhances vehicle handling and agility at low speeds while maintaining driving safety at high speeds. The power assistance is a particular highlight: it not only responds depending on road speed, but also on the current lateral acceleration and the selected AMG DYNAMIC SELECT drive mode. As a result, the driver has a perfect feel for the vehicle thanks to the direct feedback from the road.

The power steering fluid, which is subjected to high thermal loads when the car is driven extremely dynamically, is cooled with the help of an additional oil cooler – this is aerodynamically located on the central cooling module in the front end.

The standard-fit 3-stage ESP® with the "ESP ON", "ESP SPORT Handling Mode" and "ESP OFF" functions works in perfect unison with the locking differential, and is tuned optimally to the outstanding driving dynamics. It allows the driver to make adjustments to individual requirements at the touch of a button.

# Overview of 3-stage ESP®:

- "ESP® ON": for a high level of safety by adaptation to the sporty character of the car
- "ESP® SPORT Handling Mode": for a sporty driving style, allows wider drift angles before system intervention
- "ESP® OFF": system deactivated for highly dynamic driving on enclosed race circuits

The currently active status is shown in the instrument cluster. "ESP® SPORT HANDLING MODE" is active as soon as the driver briefly presses the ESP® button in the AMG DRIVE UNIT once. Pressing and briefly holding the ESP® button activates "ESP® OFF". When the brake pedal is operated forcefully, all the functions of ESP® are restored.

Integrated into ESP<sup>®</sup>, Curve Dynamic Assist reduces understeer when cornering at high speed. Controlled brake pressure at the inside rear wheel assists the cornering process even before understeer occurs. The driver does not notice this sensitive braking intervention, only its positive effect with high adhesion at the front axle when cornering. Curve Dynamic Assist is more or less pronounced depending on the selected ESP<sup>®</sup> mode: in the stability-oriented "ESP<sup>®</sup> ON" mode there is less assistance, while in the far more agility- and performance-oriented "ESP<sup>®</sup> OFF" mode the assistance is so pronounced that understeer is almost completely eliminated, making for maximum agility and lateral acceleration.

#### Optional ceramic high-performance composite brake system

Excellent deceleration characteristics and high fade resistance come courtesy of the high-performance composite brake system – on the GT with internally ventilated, perforated 360-millimetre brake discs all-round; on the GT S with discs measuring 390 millimetres in diameter at the front, to cope with the higher performance, as well as red brake callipers. On request a ceramic high-performance composite braking system is available for both models – this is

identifiable by the special bronze-painted brake callipers with "AMG Carbon Ceramic" lettering. Its advantages: lower weight, longer service life and even better fade resistance thanks to the ceramic brake discs with a diameter of 402 millimetres at the front and 360 millimetres at the rear.

The ceramic brake discs are around 40 percent lighter compared to conventional composite brake discs. The reduction in unsprung masses enhances driving dynamics and agility. At the same time the responsiveness of the steering and the suspension comfort are improved. Higher fade-resistance means a reduced loss of braking power in heavy use, for example on racetracks. Less force on the brake pedal is needed thanks to a higher friction coefficient. This allows more sensitive, precisely metered braking.

	Mercedes-AMG GT high-performance composite braking system	Mercedes-AMG GT S high-performance composite braking system	
Front axle:			
Brake calliper	6-piston aluminium fixed calliper in	6-piston aluminium fixed calliper	
	grey	in grey	
Brake disc	Composite technology, ventilated,	Composite technology, ventilated,	
	perforated	perforated	
Diameter	360 mm	390 mm	
Thickness	36 mm	36 mm	
Rear axle:			
Brake calliper	1-piston sliding calliper in grey	1-piston sliding calliper in red	
Brake disc	Composite technology, ventilated,	Composite technology, ventilated,	
	perforated	perforated	
Diameter	360 mm	360 mm	
Thickness	26 mm	26 mm	

	Ceramic high-performance composite		
	braking system*		
Front axle:			
Brake calliper	6-piston aluminium fixed calliper in bronze		
Brake disc	Ceramic composite technology, ventilated,		
	perforated		
Diameter	402 mm		
Thickness	39 mm		
Rear axle:			
Brake calliper	4-piston fixed calliper in bronze		
Brake disc	Ceramic composite technology, ventilated,		
	perforated		
Diameter	360 mm		
Thickness	32 mm		

<sup>\*</sup> Optional equipment for GT and GT S

#### Forged wheels and sports tyres as an option

As standard the Mercedes-AMG GT is shod with 10-spoke light-alloy wheels painted in vanadium silver, 9 x 19 front and 11 x 19 rear, with 255/35 R 19 and 295/35 R 19 tyres. The GT S is fitted with 10-spoke light-alloy wheels painted in titanium grey, in size 9 x 19 (front) with 265/35 R 19 tyres and 11 x 20 (rear) with 295/30 R 20 tyres.

Numerous design and colour variants are optionally available for both models:

- 5-twin-spoke light-alloy wheels painted in vanadium silver with 255/35 R 19 on 9 x 19 (front) and 295/35 R 19 on 11 x 19 (rear)
- 10-spoke light-alloy wheels painted in titanium grey with high-sheen finish, with 265/35 R 19 on 9 x 19 (front) and 295/30 R 20 on 11 x 20 (rear)
- 5-spoke light-alloy wheels painted in matt black with high-sheen rim flange, with 265/35 R 19 on 9 x 19 (front) and 295/30 R 20 on 11 x 20 (rear)
- 5-spoke light-alloy wheels painted in titanium grey with high-sheen finish, with 265/35 R 19 on 9 x 19 (front) and 295/30 R 20 on 11 x 20 (rear)

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The particularly lightweight, forged wheels in a cross-spoke design with fully integrated wheel bolt covers are a visual and technical highlight:

- Forged wheels in a cross-spoke design painted in matt black with high-sheen rim flange, with 265/35 R 19 on 9 x 19 (front) and 295/30 R 20 on 11 x 20 (rear)
- Forged wheels in a cross-spoke design painted in titanium grey and polished, with 265/35 R 19 on 9 x 19 (front) and 295/30 R 20 on 11 x 20 (rear)

Specially developed sports tyres are optionally available for the GT S in combination with the AMG DYNAMIC PLUS package. These Michelin Pilot Sport Cup 2 tyres in size 265/35 R 19 (front) and 295/30 R 20 (rear) are perfect for high-speed laps on enclosed racetracks. They ensure improved steering precision, a noticeable and measurable increase in grip and shorter braking distances on dry surfaces.

# Individual selection of vehicle character

From "Comfort" to "Sport", "Sport +" and "RACE" and "Individual". The driver is able to influence the characteristics of the GT with up to five different AMG DYNAMIC SELECT transmission modes. This makes the driving characteristics of the Mercedes-AMG sports car highly individual.

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Cruise serenely through town with a high level of understatement, or improve personal lap times with maximum dynamic performance on the racetrack: the new operating concept of the Mercedes-AMG GT with AMG DYNAMIC SELECT offers unprecedented choice and allows precise modification of the car's character to suit the individual wishes of the driver.

The driver determines the desired driving experience by using the AMG DYNAMIC SELECT controller in the centre console – there is a choice of various preconfigured transmission modes plus an "Individual" mode which drivers can largely configure for themselves.

The following AMG DYNAMIC SELECT transmission modes are available:

- "Comfort"
- "Sport"
- "Sport +"
- "RACE" (GT S only)
- "Individual"

#### "Comfort" mode with new sailing function

"Comfort" mode is the well-balanced transmission mode with a comfort-oriented suspension and steering setup, as well as a fuel-efficient powertrain configuration – including smooth gearshifts and a discreet engine note. The "sailing" function is completely new: when the driver releases the accelerator in a speed range from 60 to 160 km/h, the clutch of the DCT transmission is disengaged. This reduces the engine speed to idling level, and the driving resistance is reduced by the compression and frictional forces of the engine on the overrun. The vehicle "sails", using its own, current kinetic energy for a certain distance. This results in further fuel savings. The clutch is reengaged as soon as the driver operates the

accelerator or brake pedal. The "sailing" function is indicated in the AMG instrument cluster by a new icon depicting a stylised sailing yacht. The ECO start/stop function is also available in transmission mode "C", switching off the engine at traffic-lights and helping to save fuel.

#### "Sport" mode

The "Sport" transmission mode is characterised by agility and driving pleasure, with a sporty suspension setup and direct accelerator characteristics. The DCT transmission responds more readily, and performs faster gearshifts. The suspension has stiffer response characteristics optimised for a sporty driving style on fast, undulating circuits such as the North Loop of Nürburgring, while still offering a certain measure of comfort. The exhaust system remains quietly restrained, and 3-stage ESP® is ON. The ECO start/stop and "sailing" functions are inactive in "Sport" mode. The AMG speed-sensitive sport steering reduces the power assistance for improved road feel.

#### "Sport +" mode

In "Sport+" mode the powertrain reacts spontaneously to dynamic load changes. This is when the performance exhaust system comes into its own, completely opening the variable exhaust flaps so that the driver can fully enjoy the unmistakable sound of the AMG V8. The gearshift strategy of the DCT transmission is optimally adapted to the needs of the racetrack – including extremely fast shift times, emotional double-declutching and fast response. The suspension setup changes to racetrack mode with maximum damping for modern circuits with a very level surface, with 3-stage ESP® remaining "ON". A further reduction in steering power assistance improves road feedback. The ECO stop/start and "sailing" functions remain inactive.

#### "RACE" mode reserved exclusively for the GT S

Only the GT S is equipped with the "RACE" transmission mode: the response characteristics of the 4.0-litre V8 biturbo engine and the accelerator are now even more immediate. The exhaust system, suspension and steering remain at "Sport +" level, while 3-stage ESP® changes to "SPORT Handling Mode" and allows wider drift angles. The ECO start/stop function is inactive. The transmission activates "Race" mode, which is configured to maintain a high engine speed in the lowest possible gear when driving at racetrack speeds.

"Individual" mode Page 35

Over and above the preconfigured modes, the "Individual" transmission mode makes it possible to vary individual parameters for the engine, exhaust system, damper settings, transmission mode and 3-stage ESP<sup>®</sup>. The driver is able to configure the GT to personal requirements and conveniently store the desired configurations in the memory. The following combination is possible, for example: the shock absorbers in "Comfort", the engine in "Sport", the transmission mode in "M", 3-stage ESP<sup>®</sup> in "SPORT Handling Mode" and the exhaust system in "Sport +".

#### Pop-up window with an animated GT in various colour combinations

The currently selected mode is visualised using specific icons in the AMG instrument cluster, below the upshift indicator. A pop-up window also appears on the free-standing central display whenever the transmission mode is changed: depending on the mode, the animated GT is shown with an appropriate graphic and colour presentation. While subdued shades of blue predominate in "Comfort", the car is shown on a racetrack in "Race" – including red/white kerbs. The driver selecting "Individual" mode will find the respective features available for adaptation at the left edge of the pop-up window. For better visualisation, explanatory graphics appear on the right; in addition the selection made by the driver is highlighted in yellow.

All the AMG DYNAMIC SELECT transmission modes can be further adapted at the touch of a button in the centre console – on the left side e.g. 3-stage ESP® and the shock absorbers of the AMG RIDE CONTROL sport suspension. On the right are the buttons for manual transmission mode, for the ECO start/stop function and, depending on level of equipment, for the performance exhaust system. The high level of individualisation prevents the driver from being reduced to playing a passive role.

#### Last Mode stores the transmission mode for a maximum of four hours

The "Last Mode" function is a new feature: it prevents a previous activated transmission mode from being reset. If the driver has been on the road in "Sport +", for example, and interrupts the journey for a short period, "Sport +" remains active for a maximum of four hours. Exception: for safety reasons, 3-stage ESP® always reverts to "ON" mode when the engine is restarted – even if the driver previously activated "SPORT Handling Mode" or "OFF". A pop-up message "ESP ON" reminds the driver of this. If the journey is interrupted for

more than four hours, the basic "Comfort" mode will always be activated when

the engine is restarted.

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<u>Design</u> Page 37

## A sports car in its purest form

The new Mercedes-AMG GT embodies the sensual purity of sportiness and emotion. The two-seater is characterised by hallmark rear-wheel drive proportions. The long bonnet with its pronounced powerdomes, the greenhouse which has been moved far back, the large wheels and broad rear end make up the distinctive looks of the Mercedes-AMG GT.

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Positively arched surfaces give the Mercedes-AMG GT its sensuous character and the appearance of a sculpture. Viewed from the side, the dome-shaped, arched roof line and the frameless doors are eye-catching features. A muscular element sculpted out of the side wall creates a sense of lightness and dynamism, even when the vehicle is at a standstill. The surfaces and lines of the side wall flow into the rear-end with a dramatic tapered effect.

The GT deliberately avoids lines in the shoulder region. The only line is one lower down, picked up again in the rear bumper, which stretches the body and makes it appear lighter. The side air outlets, each with two fins, represent a typical, styling feature of Mercedes-Benz sports cars. The GT has no visible aerials which could disrupt the overall appearance.

The creative interaction of diverse design elements lends the coupé a superior, self-confident front: the three-dimensional diamond radiator grille, with central Mercedes star, a broad louvre and AMG lettering, stands in the centre of the front end.

LED High Performance headlamps with stylised "eyebrows" as daytime running lamps, side lights and indicators, as well as three separate high-beam reflectors lend the GT its characteristic look. An AMG logo on the chrome trim in the upper corner of the headlamps is a discreet indication of membership of the Mercedes-AMG model family. The nighttime light signature is dominated by the LED light spots of the low-beam headlamps and the "eyebrow" – an unmistakable facial expression.

Large air intakes optimise the flow of air to the cooling modules. The A-wing with front splitter in the lower third of the front apron, a characteristic feature of AMG vehicles, makes the sports car appear low-slung and wide. While the front splitter is painted in the body colour on the GT, it comes with a high-gloss black

finish on the GT S. Overall, customers can accentuate the exterior design according to their personal preferences: there is a choice of the Exterior Silver Chrome package, the Exterior Night package and the Exterior Carbon-Fibre package (see section Interior and appointments).

### Broad shoulders for an emotional overall appearance

With its base areas, broad shoulders and narrow tail light graphics, the rear area creates an emotional overall appearance. The licence plate bracket is located in the lower part of the bumper, allowing the Mercedes star to be placed prominently on the smooth-surfaced boot lid. Added to which is an extendable rear aerofoil, which is concealed from view while the car is at a standstill. The black diffuser insert with tailpipes integrated into the bumper and the trim strip in matt iridium silver inspired by the A-wing in the front create an appearance of lightness across the entire tail end.

Extremely flat, wide LED tail lights with new sequential indicators reflect state-of-the-art technology. 18 individual prismatic LEDs on each side indicate where the driver intends to turn by sequentially lighting up from the inside to the outside. Two slim red strips enhance the rear aspect at night. There is also a discreet AMG logo in the tail lights. The reversing lights and rear fog light – also both in LED technology – are located in the centre of the rear apron under a common lens.

The tail lights underline the sporty styling of the rear as well as the attention to detail and sophistication – form and function combine in a unique way to create a perfect unit.

## Interior: sensuality, emotion and perfection

The interior design also embodies maximum emotion and sensual purity. Radically low, sporty proportions create a unique sense of spaciousness. Clearly drawn components and their authentic materials underscore the dynamic character and create instant excitement: anyone opening the door discovers an exciting interplay between the deep, sloping dashboard and a dominant, arched high centre console, a design which evokes emotions and impresses with its perfection.

The central "aviation design" theme, which is the hallmark of Mercedes-Benz sports cars, has been restyled. The extreme emphasis on the width of the

dashboard, which creates an impression of a powerful wing, dominates the cockpit of the GT. Four central spotlight-style vents and the individual vents at the right and left ends of the dashboard reinforce the impression. In conjunction with the high beltlines, the concave-shaped door panelling and the dynamic centre console, the GT comes across as a genuine driving machine and consummately integrates the driver into the cockpit thanks to the low seat position.

The dominant centre console appears to be a feature lifted straight from motor racing by virtue of styling reminiscent of a NACA air intake, as well as the surfaces and authentic materials that have been used – there is a choice of high-grade materials such as matt carbon-fibre, high-gloss carbon-fibre and, for the first time, matt silver glass-fibre bedded in silver chrome and black diamond. Positioned centrally in the dashboard, the free-standing central display is an eye-catching feature. Attention to detail is also echoed in the AMG DRIVE UNIT controls: they are arranged like eight cylinders in a V layout, emphasising the powerful and high-tech impression made by the centre console.

Outstanding precision and a superior quality feel thanks to the finest materials with superb workmanship are also apparent on the sports seats, the performance steering wheel and the instrument cluster. The most important control for sports car fans is located in the AMG DRIVE UNIT on the left-hand side: the button for starting the engine, which is labelled "Engine Start Stop" and illuminated in red.

## Captivating and with unerring attention to detail

Captivating thanks to precision, emotionally appealing thanks to a loving attention to detail: the stylish, exclusive interior of the Mercedes-AMG GT combines sheer enthusiasm for sport with a sense of the very special. The extensive standard appointments, high level of day-to-day suitability, exemplary safety and first-class entertainment make every kilometre in the AMG sports car a sheer pleasure. Numerous options enable the driver to enhance sportiness, exclusivity and individuality according to their very own personal tastes.

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The exclusive look and feel inside the GT is created by precisely engaging rotary controls and buttons, first-class materials and attractive colour combinations. In short: the outstanding impression of value quickly conveys the feeling of driving a unique sports car.

On opening the door, the driver is welcomed by the AMG start-up screen: An animated GT appears on the multifunction display of the instrument cluster, and "winks" with its headlamps. In addition AMG lettering appears in the central display on the dashboard. The sportily designed cockpit in carbon-fibre look provides information with two classic dial instruments in a 2-tube look, with a 320 km/h speedometer scale. The rev counter reading up to 8000 rpm also features AMG lettering. When the ignition is switched on, the needles of the speedometer and rev counter spin to their final position and back, accompanied by red LEDs.

The main menu is shown in high-resolution colour in the central multifunction display. The digital speed and currently engaged gear are continuously shown here. The driver also has a variety of AMG menus available which can be activated using the steering wheel buttons:

- Warm-up: Charge pressure display, engine oil temperature, transmission fluid temperature
- Set-up: Engine, suspension, transmission, performance exhaust system, 3-stage ESP®
- RACETIMER: Lap time, lap history

If the driver has selected manual transmission mode "M" or "Momentary M mode", an upshift indicator appears at the upper edge of the multifunction display. Eight white/yellow/red LEDs and the shift gate with an upward-pointing arrow indicate that a gear change is required – a particularly helpful feature in manual transmission mode. The relevant AMG DYNAMIC SELECT icon is visible on the left.

## Performance steering wheel and AMG DRIVE UNIT

The performance steering wheel with its three-spoke design sits perfectly in the hand: it comes with aluminium shift paddles, 12-o'clock marking, a perforated grip area and a rim in black nappa leather with flattened lower section. The sports seats in ARTICO man-made leather/black fabric with integral head restraints and AMG lettering provide optimised lateral support when driving dynamically.

The DYNAMIC SELECT Controller, the buttons for the engine start, the 3-stage ESP® and, depending on the specified equipment, the electronic damper control are located on the left in the AMG DRIVE UNIT. The volume control as well as the buttons for the manual transmission drive mode, the ECO start/stop function and, likewise depending on the equipment, the selectable exhaust system are fitted on the right-hand side. By nudging the AMG E-SELECT lever in the centre, the driver is able to change between the transmission settings P, R, N and D extremely rapidly. When the car is stationary, the parking position is easily activated by pressing the "P" button. This takes place automatically when the engine is switched off. The innovative, optional touchpad in the handrest above the COMAND Controller is integrated in front of the E-SELECT lever to operate the dual clutch transmission.

A free-standing central display is located centrally above the four ventilation outlets. The display boasts a screen diagonal of 17.78 centimetres (7 inches), increasing to 21.33 centimetres (8.4 inches) if COMAND Online is specified. The driver operates the seat heating, PARKTRONIC, the hazard warning lights and, where specified, the extendable rear aerofoil using the buttons in the top control panel in the roof frame.

The GT S comes with even more sophisticated equipment and appointments, including:

- Instrument cluster with 360-km/h speedometer scale and red colour highlights
- Performance steering wheel, black nappa leather/DINAMICA microfibre
- AMG emblem embossed in the centre armrest (not in conjunction with upholstery in ARTICO man-made leather/black DINAMICA microfibre)
- Upholstery in ARTICO man-made leather/black DINAMICA microfibre

## Trim in matt silver fibreglass or in black diamond

As an alternative to the standard-fit Interior Silver Chrome package, the customer can choose from various other packages. Carbon-fibre trim elements are available in a choice of matt and high-gloss finish. Highlights include the trim in matt silver fibreglass and the Interior Black Diamond package, all offered for the first time: here the ventilation outlets, the frame of the centre console and the trim strips in the door armrests come in a sophisticated high-gloss black finish, with its surprising 3D look. The "Black Diamond" surface effect is achieved by a process known as CVD (Chemical Vapour Deposition). In this process, precious metals and carbon in a plasma are vapour-deposited to a previously applied, high-gloss chrome-plated surface at temperatures around 1000 degrees Celsius. This creates a diamond-like layer with very high adhesive strength and scratch-resistance.

## AMG performance seats and Exclusive STYLE nappa leather

AMG performance seats are optionally available for both models. By virtue of special side bolsters on the seat surfaces and backrests, these offer the occupants even better lateral support and lend the interior a distinctive, sporty character with their appearance – also thanks to the AMG badges and attractive trim in the backrests. In conjunction with leather upholstery and the Memory package, electric width adjustment for the side bolsters on the seat cushions and backrests, and also 4-way lumbar support adjustment for the driver and passenger, are part of the package. In addition, the trim in the backrest is in silver chrome rather than black.

If the particularly luxurious Exclusive STYLE nappa leather upholstery is ordered, an option only available with AMG performance seats, the seat surfaces

and door centre panels are in saddle brown nappa leather with diamond-pattern stitching. There is also brown leather on the side panels of the centre console, the armrest cover in the centre console and the lower section of the dashboard including the glove compartment lid. Features also include indirect lighting on the sides of the centre console and the designo headlining in black DINAMICA microfibre.

The combination of Exclusive nappa leather and black DINAMICA microfibre gives the interior an extremely sporty look. This upholstery is available in three versions, with contrasting topstitching in yellow, grey or red.

### Features in black nappa leather:

- seat side bolsters and head restraints
- armrest cover in the centre console
- door beltlines
- upper section of dashboard

#### Features in black DINAMICA microfibre:

- lower section of dashboard including glove compartment lid
- seat centre sections
- side panels of the centre console
- door centre panels
- headlining in black DINAMICA microfibre
- AMG performance steering wheel with rim all in DINAMICA, contrasting topstitching and black 12 o'clock marking
- indirect lighting on the sides of the centre console

## Day-to-day suitability and high level of long-distance comfort

The superb everyday practicality of the Mercedes-AMG GT is also expressed in the airy feeling of spaciousness. In addition, the good all-round visibility and the high headroom demonstrate that sporty dynamism and comfort on long journeys are not mutually exclusive – not necessarily a given in this segment. A large compartment in the centre armrest, a centrally located double cupholder, a large, easily accessible glove compartment and parcel nets in the passenger footwell and on the left behind the seat further confirm the day-to-day practicality of the GT.

The luggage compartment capacity of 350 litres will hold two golf bags either lengthways or crossways. The large boot lid makes for convenient loading, and an integrated load compartment cover is standard. The cross strut made of aluminium behind the seats prevents luggage from sliding forward as the vehicle brakes.

Overview of the extensive standard equipment (selection):

- 3-point seat belts with belt tensioners and belt force limiters
- Audio 20 USB multimedia system
- ADAPTIVE BRAKE
- Adaptive flashing brake lights
- Automatic child seat recognition
- ATTENTION ASSIST
- COLLISION PREVENTION ASSIST PLUS
- Electric parking brake
- Front airbags for driver and passenger
- KEYLESS-GO start function
- Load compartment cover
- LED High Performance headlamps
- Lithium-ion battery
- THERMOTRONIC automatic air conditioning with 2 climate zones
- Kneebags for driver and passenger
- Tyre pressure monitoring system
- Cruise control with SPEEDTRONIC variable speed limiter
- Thorax/pelvis sidebags for driver and passenger
- Windowbags for driver and passenger

The GT and GT S can be configured to individual taste with numerous optional extras (selection):

- Adaptive Highbeam Assist
- AMG DYNAMIC PLUS package including dynamic engine and transmission mounts, specific engine application, tauter suspension setup, greater negative camber at the front axle, adapted speed-sensitive sport steering, performance steering wheel in DINAMICA microfibre and yellow highlights in the instrument cluster (GT S only)
- AMG RIDE CONTROL sport suspension with adjustable damper system (GT only)
- AMG solarbeam paintwork

- Burmester® surround sound system
- Burmester® high-end surround sound system
- Exterior Carbon-Fibre package including front splitter in the front apron, exterior mirror housings, fins in the wings, carbon-fibre diffuser in the rear apron and diamond grille in black with louvre in high-gloss black
- COMAND Online
- designo headlining in black DINAMICA microfibre
- designo bright paint finish, magno or metallic
- Digital radio (DAB)
- DISTRONIC PLUS intelligent cruise control including COLLISION PREVENTION ASSIST PLUS and Stop&Go function (available from 3rd quarter of 2015)
- Door sill panels in carbon-fibre
- Door sill panels in brushed stainless steel with AMG lettering, illuminated in white
- Ceramic composite high-performance braking system
- KEYLESS-GO package
- Convenience telephony
- Media Interface cable kit
- Memory package including driver and passenger seats, steering column and electrically adjustable exterior mirrors with memory function, 4-way lumbar support for driver and passenger, PRE-SAFE<sup>®</sup> positioning function for passenger seat
- Engine cover in carbon-fibre
- Exterior Night package including front splitter in the front apron, louvre in the diamond grille, fins in the wings, exterior mirror housings and trim strip in the rear apron diffuser in high-gloss black. Rear window and quarterlights of tinted heat-insulating glass, black exhaust tailpipes
- PARKTRONIC
- Variable performance exhaust system (optional for GT, standard for GT S)
- 3-spoke performance steering wheel in black nappa leather/DINAMICA microfibre, flattened lower section, with silver-coloured aluminium shift paddles and 12 o'clock marking (optional for GT, standard for GT S)
- Performance seats for driver and passenger, with more heavily contoured seat for enhanced lateral support, integral head restraints and AMG badges in the backrests
- Nappa leather upholstery, one colour or two-tone
- Exclusive nappa leather upholstery, one colour or two-tone
- Upholstery in Exclusive nappa leather/DINAMICA microfibre
- Exclusive STYLE nappa leather upholstery with diamond-pattern stitching

- PRE-SAFE® system with reversible belt tensioners for driver and passenger seats, closing function for power windows
- Reversing camera with dynamic guide lines on the display
- Seat belts in red or silver
- Exterior Silver Chrome package including front splitter in the front apron, fins in the wings, silver chrome trim strip in the diffuser and diamond grille with pins in chrome
- Sports tyres only in conjunction with AMG DYNAMIC PLUS package (GT S only)
- Lane Tracking package including Lane Keeping Assist and Blind Spot Assist
- Luggage compartment strut in carbon-fibre, matt carbon-fibre or matt silver fibreglass
- Blind Spot Assist
- Touchpad
- Partition net for luggage compartment separation and occupant protection
- Traffic Sign Assist (included in COMAND Online)
- Exclusive Trim package

The two different Burmester<sup>®</sup> sound systems are very special highlights in the range of options:

Completely newly developed exclusively for the GT, the Burmester® high-end surround sound system guarantees a listening experience previously unattained in the sports car sector. Specially designed high-end speakers, the 11-channel Burmester amplifier with a system output of 1000 watts and exclusive analogue and digital technology features, together with a specific architecture in the bodyshell, produce the extraordinarily expressive and crisp Burmester sound. Thanks to sophisticated virtual noise compensation (VNC), the sound is also maintained as driving noise increases, guaranteeing the greatest possible listening pleasure – whether on the motorway or in town.

Specific "VIP settings" make it possible to generate the sound individually for the driver or passenger. It is only with these "VIP settings" that the sound performance, focus and depth achieved by home systems becomes possible as the mark of a high-end sound system. The occupants have a choice of four individual sound settings to suit personal taste:

- "Pure": for a natural sound interpretation as intended by the artist, with nothing added to the music
- "Easy Listening": for a slightly milder sound background suitable for long journeys
- "Live": for a decidedly dynamic sound akin to a live performance
- "Surround": for an embracing sound reproduction beyond the vehicle's dimensions, with a particularly high concert-hall quality for classical music and live recordings, and without changing the tonality

Other special features of the Burmester® high-end surround sound system:

- Ring radiator tweeter: This tweeter derived from the Burmester home audio sector has an annular membrane, and impresses with its delicate reproduction in the high frequency range
- Combination of a Class A/B and Class D amplifier: While analogue technology ensures the best possible detailed reproduction in the medium and treble ranges, the digital part of the amplifier masters the highest dynamic peaks despite its compact dimensions - with low power consumption
- Integrated digital sound processor: with over 3200 parameters
- Use of digital and analogue filters: Burmester combines the flexibility of digital filters with the sound quality of analogue filters. The result is the greatest possible resolution and fine detail, combined with impressive pulse response
- Sophisticated noise compensation (VNC): This function maintains the sound quality as driving noise increases, guaranteeing the best possible music enjoyment whether on the motorway or in town
- Design: To ensure that this Burmester high-end sound system is not only
  outstanding in its sound reproduction, but also in visual terms, the tweeters in
  the dashboard and the mid-range speakers in the doors are in keeping with
  the interior design. The plasma-coated stainless steel speaker grilles are in
  silver chrome, those in the doors featuring the familiar, engraved "Burmester
  High End" lettering

The Burmester® surround sound system available as an alternative consists of ten speakers and a low-consumption Class D 10-channel amplifier with 640 watts and an integrated DSP. Perfectly configured for the GT models, this amplifier and speaker concept is responsible for the first-class Burmester sound, while the selectable surround mode ensures a top-class surround-sound listening experience. The surround function generates a virtual surround-sound from a mono or stereo music signal to maximise the spatial effect. Thanks to

sophisticated noise compensation, the sound quality is maintained even as driving noise increases.

System-specific speaker grilles heighten the exclusivity: the mid-range speakers in the doors feature acoustically optimised expanded-mesh grilles and "Burmester" lettering. The surrounds of the speaker grilles are in silver chrome.

## Sporty and extraordinary: the Mercedes-AMG GT S "Edition 1"

The "Edition 1" is a particularly sporty Mercedes-AMG GT S: the extraordinary composition of the sporty exterior and interior details create a head-turning spectacle.

- Aerodynamic package in black (larger front splitter with smooth transition to the flics on the side air intakes of the front apron, wheel arch flics at the front, dynamic black trim on the side sill panels, fixed rear aerofoil)
- Carbon-fibre roof
- Exterior Night package (diamond grille in black with louvre in high-gloss black, fins in the front wings in high-gloss black, exterior mirror housings in high-gloss black, trim strip in the diffuser insert in high-gloss black, triangular side windows and rear window in heat-insulating tinted glass (country-specific), black tailpipes)
- 10-spoke light-alloy wheels painted in black with a high-sheen finish, tyres in size 265/35 R 19 on 9 x 19 (front) and 295/30 R 20 on 11 x 20 (rear)

The pure racetrack feel also dominates the interior:

- Black nappa leather interior with red contrasting topstitching
- Performance seats with integral belt guide in black nappa leather/DINAMICA microfibre with red contrasting topstitching
- Interior Black Diamond package

Performance steering wheel in DINAMICA microfibre with flattened lower section, 12-o'clock marking, red contrasting topstitching, steering wheel bezel in silver chrome with "Edition 1" lettering and silver-coloured aluminium shift paddles

## Less weight for more dynamic performance

Mercedes-AMG has employed an intelligent material mix for the body of the GT. Chassis including greenhouse and body are produced in light alloy, the boot lid of steel and the front deck in magnesium. Over 90 percent of the weight-optimised spaceframe consists of aluminium components, leading to a low kerb weight of 1540 kilograms. Painstakingly refined aerodynamics ensure good balance and effective cooling.

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Bodyshell and structural development for the GT was carried out entirely in-house by Mercedes-AMG GmbH. The GT uses the technological DNA of the Mercedes-Benz SLS AMG, one of the most successful sports cars of recent years. The GT is a systematic further development in terms of vehicle dynamics, lightweight design and quality, while the latest legal requirements and in-house Daimler standards relating to passive safety are reflected in state-of-the-art technology.

The bodyshell weight of the GT is 231 kilograms – a benchmark figure in the sports car segment. There was one overriding objective during the design and development of the bodyshell structure: to achieve a very lightweight but also very rigid structure – ideal requirements for the use of aluminium. It is not only the car's low centre of gravity and the high static and dynamic flexural and torsional rigidity that play a key role, but also the induction and transfer of extreme longitudinal and lateral forces from the powertrain and suspension. Unwanted flexibility is thus reduced, with the vehicle responding rigidly and directly. As a result, the driver experiences a sports car with maximum dynamism that responds with excellent precision.

The aluminium spaceframe of the GT consists of cast aluminium components and aluminium sections. Cast components are used at the nodal points where forces come together or where functions are highly integrated, i.e. where large forces require to be transferred. Cast components have the advantage of enabling the specific discharge of forces, and make it possible to vary wall thicknesses locally according to the loads encountered. Areas of greater rigidity can therefore be incorporated where required, for example at the chassis connections.

Moreover, only the necessary wall thickness is provided at any point of the structure, which saves weight in the areas subject to lower forces.

With the help of so-called topology optimisation, the cast components are specifically weight-optimised: ribbed structures precisely follow the force paths, while wall thicknesses are reduced to a minimum in less highly stressed areas.

A spaceframe structure of aluminium sections and cast components is used in the roof area. This meets the stringent requirements for rollover resistance. At the same time this solution reduces weight in the upper body area, with positive effects on the vehicle's centre of gravity. The torque tube connecting the engine to the dual clutch transmission at the rear axle is made of sand-cast aluminium.

## Front deck in magnesium, boot lid in steel

The extremely lightweight front deck made of magnesium reduces the inertia ahead of the front axle, improving the agility of the GT. The boot lid is made of steel. This was a deliberate choice: to achieve the same level of torsional rigidity, a comparable aluminium boot lid would be considerably heavier. All the aerials for radio, telephone and navigation reception are invisibly located in the boot lid and rear window.

## Panoramic roof – better view and more light

On request the sports car is also available with a panoramic roof. This one-piece glass module connecting directly with the windscreen spans the entire roof area. It gives the driver and passenger the best possible view, and creates a bright, friendly atmosphere in the interior. A manual roller sunblind provides shade in bright sunshine. The continuous, homogeneous glass surface gives the vehicle exterior an even more lightweight appearance.

## Carbon-fibre roof exclusively for "Edition 1"

The GT is given even more of a racing touch and greater individuality by the striking carbon-fibre roof, which is available exclusively for the "Edition 1". The roof features a carbon-look finish, as used in motorsport.

## Exclusive production for optimum product quality

The aluminium spaceframe and body of the GT are produced to the most stringent quality standards. Highly qualified specialists join the aluminium components using cutting-edge methods. The most appropriate joining technique is used depending on requirements – riveting, bonding, welding and bolting.

The production shop applies a mixture of manual and automated processes. The bonding adhesive for the body is applied completely automatically, for example, and the welding studs, body bolts and a major proportion of the riveted connections are also placed fully automatically. At the end of bodyshell production a portal milling machine precisely positions around 130 functional and access apertures – e.g. for lights, major assemblies or the front and rear apron. And as a matter of course for a new model bearing the Mercedes star, the utmost precision and process reliability are mandatory during production, as only this guarantees optimum product quality.

## Aerodynamics for good balance and effective cooling

Vehicle proportions, weight distribution and drive configuration, handling stability, drag, cooling and wind noise: the aerodynamics of the GT fulfil complex requirements. The high-performance vehicle has been developed aerodynamically with one clear objective in mind: transferring the high power to the road to enhance driving dynamics and handling safety at medium and high speeds. Thanks to the aerodynamic configuration, critical driving situations can be avoided – such as with a sudden evasive manoeuvre at high speed.

The design of the front apron with A-wing and front splitter not only reduces lift to the desired level, but also helps route air directly to and from the cooling modules. The flow of cooling air from the aerodynamically shaped brake cooling ducts also specifically improves brake performance.

The large area of underbody cladding ensures an optimum exhaust airflow from the oil cooler in the underfloor area, and effective airflow to the rear diffuser. As an active component of the aerodynamics, the Mercedes-AMG GT comes with an extendable rear aerofoil that is integrated into the design silhouette. The aerofoil extends at 120 km/h and retracts when the speed falls below 80 km/h. When the "RACE" driving mode (GT S only) specially configured for the racetrack is active, the speed thresholds are 70 and

30 km/h. Alternatively, the driver is able to extend or retract the rear aerofoil by pressing a button. In combination with rear diffuser without air deflectors, the vehicle's roadholding is enhanced in the aerodynamically relevant speed range. This improves lateral acceleration and handling stability at high speeds.

A drag coefficient ( $C_d$  figure) of 0.365 and a frontal area (A) of 2.13 m<sup>2</sup> results in a wind resistance ( $C_d$  x A) of 0.78 m<sup>2</sup>. The GT S and GT have identical wind resistance.

The low wind noises of the GT considerably contribute to the long-distance comfort that is a hallmark of Mercedes-Benz. Effective sealing systems and sophisticated aero-acoustics ensure a high level of day-to-day suitability. The anti-soiling measures for the exterior mirrors, side windows and rear window make an important contribution to active safety.

## Aerodynamic package reserved exclusively for the "Edition 1"

The Aerodynamic package is reserved exclusively for the "Edition 1" (also see section Interior and appointments): A large front splitter ending in the flics on the air inlets, a fixed rear aerofoil and flics at the front wheel arches increase the downforce. This improves the driving characteristics at high speeds, especially lateral acceleration, handling stability and braking distance. The Aerodynamic package is rounded off by special side sill features ensuring a strikingly sporty look.

## High level of safety and numerous assistance systems from the new S-Class

The new AMG sports car also meets the very high active and passive safety standards that are traditional at Mercedes-Benz. Right from the outset, the specified lightweight construction and outstanding crash characteristics were designed to be in line with the car's low centre of gravity and the best possible distribution of force and load paths. The latter are specifically routed around the occupants – this applies to front, rear-end and lateral collisions, as well as to roof impacts.

The standard-fit restraint systems not only include three-point seat belts with belt tensioners and belt force limiters, but also front airbags, combined thorax/pelvis

sidebags, windowbags and kneebags, for the driver and front passenger respectively.

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The Mercedes-AMG GT adopts numerous Mercedes-Benz Intelligent Drive assistance systems that are familiar from the new S-Class. Standard equipment includes COLLISION PREVENTION ASSIST PLUS, ADAPTIVE BRAKE, ATTENTION ASSIST and the tyre pressure monitoring system. Optional extras available include:

- Adaptive Highbeam Assist
- PRE-SAFE® system
- PARKTRONIC
- Reversing camera
- Lane Tracking package including Lane Keeping Assist and Blind Spot Assist
- Blind Spot Assist

Traffic Sign Assist (included in COMAND Online)

# The Mercedes-AMG GT featuring exclusively in the PlayStation<sup>®</sup>4 racing game DRIVECLUB<sup>TM</sup>

Shortly after its world premiere, the sensational new Mercedes-AMG GT sports car can be exclusively experienced in DRIVECLUB<sup>TM</sup> on PlayStation®4. DRIVECLUB is the next-generation racing game from Sony Computer Entertainment Europe, and has been available in Europe since October. DRIVECLUB also features five other models from the high-performance brand Mercedes-AMG: the A 45 AMG, the CLA 45 AMG, the C 63 AMG Coupé *Black Series*, the SL 65 AMG and the SLS AMG Coupé *Black Series*.

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This is the first time that a Mercedes-Benz vehicle is being featured in a game shortly after its world premiere. In close cooperation with the engineers at AMG, who provided the technical specifications and data, Evolution Studios has managed to reproduce the AMG GT in DRIVECLUB with breathtaking precision. The team from Evolution Studios, which had an opportunity to experience the sports car on the test track, also recorded the engine sounds directly on-site, making it possible to authentically reproduce every aspect of the car. With six AMG models, from the sporty compact class to the super sports car, Mercedes-Benz is the premium manufacturer with the widest range of models in the game.

"The Mercedes-AMG GT is an extraordinary sports car, and we are very pleased that we can offer it to players in DRIVECLUB before production actually starts. The car will be made available as a free download in the first week of the game's market launch," says Paul Rustchynsky, Game Director at Evolution Studios. "We're delighted that Mercedes-Benz is so strongly represented in DRIVECLUB. It confirms the attractiveness and standing of the brand, as only the world's most exciting and prestigious sports cars are chosen by game developers," says Dr. Jens Thiemer, Head of Marketing Communication at Mercedes-Benz Cars.

#### The new PlayStation 4 racing game DRIVECLUB

In DRIVECLUB, which was developed by Evolution Studios exclusively for PlayStation 4, everything revolves around the player and his or her friends. It is all about teamwork, about each individual taking care of the others so that all are jointly rewarded – and most importantly, all of them jointly experience the kick of every race. The players can either compete in individual high-speed races or join a racing club to discover DRIVECLUB. DRIVECLUB was specially developed for the next player generation, and combines the social networks with the social potential of PlayStation 4 to connect players directly with each other. It is possible at any time to exchange information, issue and accept challenges and stay informed about the performance of the team.

DRIVECLUB makes the world of cars an emotional experience. With its authentic, intensive driving experiences, DRIVECLUB enables players to feel the fascination of driving the world's most powerful and beautiful cars – as in real life, inside and out, in accurately detailed, actual locations.