

The new Mercedes-Benz GLA45 AMG

#### **Press Information**

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## **Compact SUV with Driving Performance**

Mercedes-AMG rigorously continues its product initiative: with the new GLA45 AMG the performance brand of Mercedes-Benz makes a dynamic statement in the strongly growing segment of compact SUVs. The combination of powerful-distinctive design, exclusive appointments as well as superior engine power and driving performance is unique: the most powerful series-production four-cylinder engine in the world puts 355 hp of power and 332 lb-ft of torque on the road.

The GLA45 AMG also holds pole position with regard to driving dynamics: it accelerates from zero to 0-60 mph in 4.8 seconds and reaches a top speed of 155 mph (electronically limited). Thanks to the combination of standard performance-oriented AMG 4MATIC four wheel drive and AMG SPEEDSHIFT DCT 7-speed sports transmission, the GLA45 AMG impresses with its equally sporty and efficient drive system concept.

Tobias Moers, Chairman of the Management Board at Mercedes-AMG GmbH: "The response to the Concept GLA45 AMG during the world premiere at the Los Angeles International Auto Show has reaffirmed our decision to launch this new AMG model. Currently no segment is growing faster than that of compact SUVs. For Mercedes-AMG it is therefore logical to make a dynamic statement in this segment with the GLA45 AMG. Our new high-performance-SUV not only offers the world's most powerful series-production four-cylinder engine, but also impressively low fuel consumption and emissions figures. Not least on account of the performance-oriented AMG 4MATIC four wheel drive, the GLA45 AMG is a true AMG when it comes to driving dynamics."

#### Young target group: styling, dynamics and independence

In addition to the CLA45 AMG, the GLA45 AMG is the second vehicle with a four-cylinder turbo engine to appeal to a young target group. Customers take a

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great interest in styling, dynamics and independence – traits that are perfectly embodied in the new high-performance SUV from Affalterbach. Meeting a wide variety of customer desires has always been one of the strengths of Mercedes-AMG. The GLA45 AMG now expands the extensive high-performance SUV lineup to four models in the U.S. (GLA45 AMG, ML63 AMG, GL63 AMG, and G63 AMG). Mercedes-AMG thus offers the widest range of SUVs among all high-performance premium brands.

### Hallmark AMG features: the world's most powerful series-produced fourcylinder engine

Best in class: the GLA45 AMG engine fully lives up to this claim, as a look at the figures shows. The AMG 2.0-liter turbo engine is the most powerful series-production four-cylinder turbo engine in the world. It produces 355 hp of power and develops a peak torque of 332 lb-ft. A power output of 178 hp puts the AMG high-performance turbo engine on a par with the world's most powerful super sports cars.

Development of the high-performance turbo engine placed emphasis on a sustainable reduction in particulate emissions. The AMG 2.0-liter four-cylinder turbo engine features spray-guided direct petrol injection with piezo injectors positioned centrally in the four combustion chambers and an injection pressure of 200 bar. The combination of multiple fuel injection and multiple spark ignition improves fuel economy and significantly increases the thermodynamic efficiency, leading to low exhaust emissions. The injection system's outstanding flexibility also ensures a high degree of freedom in terms of application. There are up to five injections per combustion cycle in the coldstart and warm-up phase, which is so crucial for emissions. One of the key factors for in-engine particulate reduction is a reduction of the individual injection quantities.

Further highlights of the AMG 2.0-liter four-cylinder turbo engine:

Gravity-die sand-cast all-aluminum crankcase

- Forged pistons with friction-optimized piston rings
- NANOSLIDE cylinder liner technology
- Air-to-water intercooling system
- Alternator management
- ECO start/stop function

# Twin-scroll turbocharger and AMG sports exhaust system with variable vane

Mercedes-AMG addresses the basic challenge with regard to the throttle response of a small-capacity turbo engine by using a twin-scroll turbocharger, maximum de-throttling of the exhaust system and an innovative injection strategy. Twin-scroll technology provides a more spontaneous build-up of charge pressure: utilization of the exhaust back-pressure, exhaust-gas temperature and exhaust-gas pulse has a positive impact. This results in a faster build-up of torque even at low engine speeds. A positive side-effect: fuel consumption and exhaust emissions also benefit from twin-scroll technology. With a maximum charge pressure of 26psi, the AMG 2.0-liter four-cylinder turbo engine leads the field on this front, too.

The AMG sports exhaust system in the GLA45 AMG features large pipe cross-sections and an automatically controlled viarable vane: this technology reconciles the two conflicting goals of a dynamic driving experience and hallmark Mercedes suitability for long-distance driving. The vane in the rear muffler is continuously adjusted under map control according to the driver's performance needs, load condition and engine speed. The two rectangular chrome-plated twin tailpipes of the AMG sports exhaust system emit a fascinating exhaust note, which is particularly impressive during powerful acceleration. An AMG Performance exhaust system, also equipped with an exhaust vane, is available as an optional extra. Customers opting for this system will experience an even more appealing and distinctive engine sound.

The AMG 2.0-liter four-cylinder turbo engine is assembled purely by hand in accordance with the traditional AMG philosophy of "one man, one engine". Apart from serving as an AMG hallmark confirming superlative production quality, the AMG engine badge bearing the engine fitter's signature also attests the peerless DNA of Mercedes-Benz's high-performance brand.

#### AMG SPEEDSHIFT DCT 7-speed sports transmission

The AMG SPEEDSHIFT DCT 7-speed sports transmission in the GLA45 AMG features three distinct transmission modes, a double-declutching function dependent on the transmission mode and a RACE START function for optimum acceleration. The strengths of the dual-clutch transmission include spontaneous gear shifts without loss of tractive power, a tailor-made control strategy based on the AMG SPEEDSHIFT functions, extremely smooth gear shifts, and a high level of efficiency.

The shift times in manual mode "M" and in sport mode "S" are similarly sporty in character to those of the SLS AMG GT super sports car. Quick and precise retardation of the ignition and suppressing injection under full load lead to even faster gear shifts in "M" and "S" modes, with a more exciting sound. The transmission control fully utilizes the benefits of direct injection technology right up to the physical limits: the quicker engine response ensures that injection is suppressed with even more precision. The effect: the shift speed and an emotional sound experience make for a fascinating ride. Another special feature designed to enhance dynamic performance and driving pleasure is the so-called "Momentary M mode" – as seen in the SLS AMG Coupé *Black Series* super sports car.

In "C" mode (Controlled Efficiency), smooth transmission and engine characteristics support a fuel-efficient and comfort-oriented driving style. In addition, the ECO start/stop function is active in "C" mode.

The GLA45 AMG comes with variable AMG 4MATIC four wheel drive as standard. In developing this four wheel-drive system, the focus was firmly on performance and dynamic spirit. The all-wheel-drive system transfers the engine power to the road optimally and provides perfect traction – regardless of the weather conditions. It also elevates driving dynamics to the highest level.

The entire drive system boasts a weight-saving and compact design: the power take-off unit (PTU) is fully integrated into the 7-speed sports transmission and handles the power transfer to the rear drivetrain. A two-part propeller shaft sends the power of the engine to the rear axle as well. In the interests of favorable weight distribution, an electro-hydraulically controlled multiple-disc clutch is integral with the rear-axle differential. Ahydraulic pump instantaneously presses the discs together and channels the engine torque to the rear wheels as necessary. All this goes unnoticed by the driver. Power distribution is fully variable: during normal driving the GLA45 AMG uses front-wheel drive for optimal efficiency. Where needed, the variable four-wheel-drive system splits the torque between the front and rear axles at a ratio of up to 50:50 percent.

Typically for AMG, the Electronic Stability Program is configured as a three-stage ESP®. The GLA45 AMG comes with three transmission modes: "ESPON", "SPORT Handling Mode" and "ESPOFF" – enabling the driver to vary dynamic performance according to individual requirements at the push of a button. ESP® Curve Dynamic Assist is likewise included as standard. During dynamic cornering, imperceptible braking interventions on the rear inside wheel create a defined yaw moment about the vertical axis. The effect: the GLA45 AMG turns in precisely and controllably at all times while unwelcome understeer is prevented.

One of the keys to agile handling is axle technology: for enhanced driving dynamics, the McPherson front axle on the GLA45 AMG is fitted with stiffer steering knuckles and new elastokinematics. The four-link rear axle has also been newly developed. Stability and precision of handling are enhanced by the optimized elastokinematics and the rigid connection between the subframe and the body. The AMG sports suspension with specially tuned spring/damper units and bigger anti-roll bars ensures high lateral acceleration and reduced body roll when driving fast on winding roads. An AMG performance suspension with firmer spring and damper tuning is available as an optional extra.

The AMG speed-sensitive sports steering with specific, speed-dependent power assist ensures high steering precision and agility. The AMG high-performance braking system with vented, perforated brake discs all-round and gray-painted brake calipers delivers spontaneous and reliable deceleration. Red brake calipers are available as an optional extra.

#### Three attractive AMG alloy wheels to choose from

In standard specification the GLA45 AMG runs on 5-twin-spoke AMG alloy wheels painted titanium gray with high-sheen finish, mounted with tires of size 235/45 R 19. As an optional extra from the AMG Performance Studio, customers can opt for larger 10-spoke AMG alloy wheels with tires of size 235/40 R 20 – these are available painted titanium gray with high-sheen finish or painted matte black with high-sheen rim flange.

#### Powerful and distinctive: sensual clarity with AMG character

The design of the GLA45 AMG exudes fascination on account of its powerful and distinctive character. As the powerful AMG top-of-the-line model of the GLA class, the high-performance SUV combines the hallmark sensual clarity of Mercedes-Benz as an expression of modern luxury with muscular elements

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exclusive to AMG. The AMG front fascia with front splitter and the AMG "twin blade" radiator grille provide athletic highlights – both are painted matte titanium gray. Completely new: the distinctive AMG lettering at the side between the louvers of the radiator grille. This will make all new AMG models easy to recognize in the future. Black flics (air deflector elements) above the large cooling air intakes at the sides pay homage to motor sport. Bi-xenon headlights come as standard.

When viewed from the side, the distinctive AMG alloy wheels in three design options certainly catch the eye. The side sill panels with matte titanium gray inserts, the "TURBO AMG" lettering on the front fenders and the aluminum roof rails lend the GLA45 AMG a special touch. The rear end is dominated by the diffuser insert with titanium gray trim and the rectangular, chrome-plated trim of the twin tailpipes of the AMG sports exhaust system with exhaust flap.

The following AMG equipment features can optionally upgrade the exterior design:

- Aerodynamics package: larger front splitter, additional flics on the front fascia, rear spoiler, Night package
- Carbon-fiber exterior mirror housings
- Exterior Carbon-Fiber package: carbon-fiber front splitter, side sill panel insert and rear fascia trim, with twin blade of the radiator grille in silver chrome
- Rear spoiler
- Night package: black anodized waistline trim strip, silver chrome radiator grille louvers; high-gloss black front splitter, exterior mirrors, side sill panel insert and rear fascia trim, two tailpipes with black rectangular trim
- Red painted brake calipers with black AMG lettering

#### Interior design: high-quality, sporty, exclusive

As in all AMG high-performance automobiles, the interior of the GLA45 AMG delights with its high-quality appeal combined with sporty flair and exclusive

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equipment features. These include sports seats upholstered with MB-Tex manmade leather/DINAMICA microfiber with red contrasting topstitching and red designo safety belts as well as the AMG DRIVE UNIT. The 3-spoke nappa leather multifunction sports steering wheel with red contrasting topstitching, perforated leather in the grip area and steering-wheel shift paddles ensures perfect vehicle control. The AMG instrument cluster with 2-tube design and central color display, AMG main menu and RACETIMER is on hand to keep the driver up to date. On opening the door, the driver is greeted by the AMG start-up screen. The trim of the instrument panel is made from brushed aluminum and, in tandem with the brushed stainless-steel AMG front door sills, emphasizes the high-grade, exclusive ambiance inside the GLA45 AMG.

The interior can be upgraded with the following AMG optional extras:

- Performance steering wheel in black nappa leather/Alcantara®
- Performance seats upholstered in leather or MB-Tex man-made leather/DINAMICA microfiber for driver and front passenger, with more strongly contoured seat shape for enhanced lateral support and with integral head restraints, red designo safety belts
- Carbon-fiber trim
- Leather upholstry in black, crystal gray, nut brown or black 'Red Cut' design

#### Expressive and exclusive: the GLA45 AMG "Edition 1"

The GLA45 AMG "Edition 1" is a special option. The expressive arrangement of exclusive exterior and interior details arouses pure fascination. The high-gloss black Aerodynamics package with larger front splitter, additional flics in the front fascia, and rear airfoil creates an uncompromising racetrack feel. The silver gray/red AMG racing stripes on the vehicle sides below the "dropping line" leave a lasting impression. These are complemented by red highlights on radiator grille, exterior mirrors, diffuser insert and rear airfoil. A perfect match to these are the red painted brake calipers and multi-spoke AMG alloy wheels painted matte black with red rim flanges. The alloy wheels feature special

AMG wheel hub covers with central-lock look, and are mounted with tires of size 235/40 R 20 all-round. The AMG Night package is also part of the standard equipment, as is the "Edition 1" badge on the front fender. The metallic paints cosmos black, polar silver and mountain gray are available as an alternative to the cirrus white exterior paintwork.

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The interior of the GLA45 AMG "Edition 1" is dominated by the colors black and red. Red contrasting topstitching adorns the AMG Performance seats upholstered in MB-Tex man-made leather/DINAMICA microfiber, the door center panels, the upper section of the MB-Tex man-made leather/DINAMICA microfiber instrument panel and the nappa leather/DINAMICA microfiber AMG Performance steering wheel. Other visual highlights are the E-SELECT lever with embossed AMG emblem and the "Edition 1" badge on the AMG DRIVE UNIT. The exclusive trim on the instrument panel perfectly matches the AMG racing stripes on the sides of the vehicle. The high-quality surface has a convincing look and feel: shiny and matte elements create an exciting interplay.

The new Mercedes-Benz GLA45 AMG will celebrate its world premiere on January 13, 2014 at the North American International Auto Show in Detroit, USA. The vehicle will roll into dealerships in the fall of 2014.

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