

Mercedes-Benz C 32 AMG: High-performance saloon with a high-torque, six-cylinder supercharged powerplant

- **Supercharged performance: 3.2-litre V6 produces 260 kW/354 hp**
- **Torque: an unrivalled 450 Newton metres**
- **Big on fun, frugal on fuel: just 11.5 litres per 100 km**
- **New transmission: automatic with the dynamism of a manual transmission**

With the C 32 AMG, an exciting high-performance saloon with outstanding values, an exclusive appearance and typical Mercedes qualities is celebrating its world premiere in Detroit. Mercedes-AMG GmbH is offering its discerning customers not only the most powerful model variant in its successfully launched new C-class, but also an extremely lively sporty saloon with top technology that promises dynamic motoring pleasure for mile after mile.

Equipped with a newly-developed 260 kW/354 hp supercharged six-cylinder AMG engine, the C 32 AMG opens up new dimensions in torque: the powerful engine delivers an excellent 450 Newton metres from 4400 rpm – outclassing everything in the sporty medium-size segment. The torque band of the supercharged six-cylinder unit is equally impressive, for more than 400 Newton metres are available from just 2300 rpm.

To achieve these top figures, the technicians at Mercedes-AMG build every engine by hand from series production components, ensuring the closest possible tolerances. This is where individual workmanship and skill count: each technician is responsible for a complete engine. With the utmost care, he installs each and every part himself, from the newly-developed crankshaft, redesigned connecting rods and ultra heat-resistant pistons to the supercharger.

Helical belt-driven supercharger for a high charge pressure

A newly designed supercharger lies at the heart of the powerplant and ensures an unusually high air flow rate. This belt-driven charger is of the helical type with cast aluminium and Teflon-coated rotors. At maximum engine speed these achieve up to 20,700 rpm, forcing up to 1200 kilograms of air per hour into the cylinders of the AMG V6 engine. This innovative technology thus produces a significantly higher charge pressure than conventional belt-driven charging systems. To be specific, the supercharger in the Mercedes-AMG produces charge pressures of more than 1.0 bar – that is up to 30 percent more than comparable systems.

Mercedes-AMG efficiently cools the air heated up by the compression process by means of a specially developed intercooler. Instead of using a conventional air/air cooler the engineers conduct the air through a sophisticated water-type counterflow intercooler which also compensates temperature peaks. In addition these specialists have meticulously adapted all components in the lively AMG V6 powerplant to cope with the enormous output and torque. This includes special assembled camshafts, whose low weight combines with harder valve springs to increase the dynamism of the valve gear perceptibly. Measures such as these have made it possible to increase the rated engine speed of the series production engine from 6000 rpm to 6220 rpm.

Top performance with low fuel consumption and low emissions

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The Mercedes-AMG engineers have created the ideal conditions for outstanding performance: the C 32 AMG reaches the 100 km/h mark in just 5.2 seconds, absolves the standing-start kilometre in only 24.5 seconds and has a maximum speed of 250 km/h (electronically limited).

Needless to say, the C 32 AMG also lives up to Mercedes-AMG's high environmental standards. With NEDC combined fuel consumption of just 11.5 litres of unleaded premium fuel per 100 kilometres, this high-power saloon clearly demonstrates that even sports-car performance must by no means be at the expense of fuel economy - something which is also underlined by the fact that the new C 32 AMG already complies with the particularly demanding EU 4 standard which comes into force in 2005.

SPEEDSHIFT for even more sporty enjoyment

The Mercedes-Benz C 32 AMG delivers its formidable power via a five-speed automatic transmission with a one-touch selector, which the engineers have systematically configured to suit the extremely sporty character of this breath-taking saloon. Known as "SPEEDSHIFT", this configuration combines the advantages of a five-speed automatic transmission with the dynamism of a manual transmission, thereby setting new standards. With a series of new ideas, the Mercedes-AMG transmission specialists surprise even highly demanding and active drivers. Special technical features of this transmission include active downshifting, which automatically shifts down and selects the correct gear when a certain braking force is applied – for example when a sporty driver brakes before taking a bend. When negotiating a bend at high speed the transmission will also

reliably remain in the same gear above a certain lateral acceleration level, thereby providing unadulterated driving fun whilst avoiding load-change reactions.

Another new feature is what is termed the optimum gear function. This means that to shift down before overtaking, the driver of the new C 32 AMG need only move the shift lever to the left and briefly maintain this position. In accordance with the speed and the pre-stored characteristic engine data the transmission management system will then select the best gear for powerful acceleration.

Naturally the C 32 AMG responds optimally and directly to the accelerator in any other driving situation, too. This is ensured by a lighter torque converter with a lower inertia, a mechanical torque converter lockup above first gear and specially enhanced shift logic which adapts the shift points to the engine's pre-stored characteristic data and the individual driving situation. These measures not only ensure excellent dynamic performance and a reduced fuel consumption, they also provide an up to 35percent more rapid gearshift response in all speed ranges.

Sporty AMG 17-inch wheels and generously dimensioned disc brakes

The specially retuned chassis provides sporty handling with a high level of comfort. Major differences compared with the suspension set-up on the C 320 include retuned spring/damper units all round and a body which is approximately 30 mm lower at the front and rear axles and which thus appears to be a good deal closer to the road surface. Precise road contact is taken care of by 17-inch AMG light-alloy wheels, 7.5 inches wide at the front and 8.5 inches wide at the rear. The new C 32 AMG features 225/45 R 17 tyres at the front and 245/40 R 17 rubber at the rear.

The newly-developed AMG braking system is always ready to deliver the necessary stopping power with its 345 x 30 mm internally ventilated perforated disc brakes at the front and 300 x 22 mm internally ventilated disc brakes at the rear. Driving safety is enhanced still further thanks to ABS, ESP®, ASR and the Brake Assist system.

Design and interior: the ultimate combination of exclusivity and driving comfort

The striking AMG styling of the new Mercedes-Benz C 32 AMG not only features judiciously applied, exciting visual highlights, it also demonstrates its relatedness to all the other high-performance automobiles produced by Mercedes-AMG GmbH. The powerful sweep of the front air dam with its integral fog lights, the special side-skirt panels and the muscular rear apron leave no doubt as to the dynamic qualities of this sporty new high-performance saloon. The harmony of the overall effect is completed by the distinctive rear silencer with the characteristic AMG "dual oval" chrome tailpipe which also produces an unmistakably sporty engine sound.

Exclusive style and superb appointments dominate in the interior. These include the special AMG instrument cluster with a speedometer calibrated up to 300 km/h, an ergonomically improved AMG sports steering wheel in leather and AMG sports seats (upholstered in exclusive nappa leather as standard) which are specially shaped to provide optimum lateral support.

Model of success: AMG has produced some 9000 sporty C-class models

The C 32 AMG supersedes the successful eight-cylinder models, the C 43 AMG and the C 55 AMG, 4200 of which were produced in total. Together with the C 36

AMG, the very first complete AMG vehicle, a total of some 9000 sporty C-class vehicles drove out of the production buildings in Affalterbach and Bremen between 1994 and May 2000.

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The C 32 AMG has all that it takes to continue this success story. Mercedes AMG GmbH is anticipating a strong demand in all central markets. It has set its sights on some 3500 models per year.