

Mercedes E63 AMG 2010

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With 518 hp and AMG SPEEDSHIFT MCT 7-speed sports transmission

AMG is kicking-off the 2009 driving season with a new superstar: shortly after the launch of the new E-Class, the AMG high-performance brand of Mercedes-Benz Cars presents the new 2010 E63 AMG. This dynamic sports sedan impresses with outstanding performance, thrilling handling characteristics and advanced technology transferred from its sibling, the SL63 AMG high-performance Roadster. The E63 AMG makes its U.S. sales debut in November 2009.

The new E63 AMG distinguishes itself from the standard Mercedes-Benz E-Class sedans with a newly developed AMG RIDE CONTROL sports suspension with electronically controlled damping, revised front suspension and unique exterior and interior design. At the same time, Mercedes-AMG has achieved a significant reduction in fuel consumption of almost twelve percent for the new E63 AMG, thanks to the precise application of several fuel efficiency improvements. With its unique combination of pioneering driver assistance systems, the E63 AMG further consolidates the brand's leading position in the field of automotive safety.

The AMG 6.3-liter V8-engine in the new E63 AMG develops an output of 518 hp and a 465 lb-ft of torque, matching the outstanding figures for the SL63 AMG. The high-performance Roadster has also transferred its AMG SPEEDSHIFT MCT 7-speed sports transmission to the new model. This transmission replaces the conventional torque converter through the use of a multi-disc wet start-up clutch. In conjunction with the four individual driving modes, rev-matched shifts and RACE START function, the resulting, direct connection to the powertrain delivers an extremely emotional and high-performance driving experience.

The AMG MCT drive unit is unique in this segment, and provides dramatic performance figures: the E63 AMG accelerates from standstill to 60 mph in just 4.4 seconds, with a top speed of 155 mph (electronically limited). The fast-revving, naturally aspirated engine with a displacement of 6208 cc impresses with its agile responsiveness, muscular power delivery and high redline. The AMG V8 sound is a thrilling partner for mile after mile, while the smooth-running engine guarantees renowned Mercedes long-distance comfort. A newly designed water cooling system ensures maximum endurance even under the enormous dynamic stresses of the racetrack.

Fuel consumption cut by almost twelve percent

Despite 11 hp of additional output versus the preceding model, the E63 AMG showcases several advancements designed to improve fuel efficiency, including on-demand delivery of fuel and alternator management with recuperation of engine power during overrun. In-engine friction is also reduced by the AMG-exclusive twin-wire arc spray coating process used to coat cylinder walls.

The AMG SPEEDSHIFT MCT 7-speed sports transmission also makes a decisive contribution to fuel economy: a multi-disc wet clutch running in an oil bath replaces the previous torque converter. This unit responds extremely rapidly, directly and without the losses typical of a torque converter transmission thanks to its low rotational inertia. The transmission is equipped with four driving modes: "C" (Controlled Efficiency), "S" (Sport), "S+" (Sport plus) and "M" (Manual), which can be selected using a rotary electronic switch in the AMG DRIVE UNIT. Partial suppression of individual cylinders by interrupting ignition and injection during gearshifts under full load contributes to considerably faster shift times. In M mode the AMG SPEEDSHIFT MCT 7-speed sports transmission allows gearshifts to be performed in 100 milliseconds.

In the even more fuel-efficient driving mode Controlled Efficiency, the transmission shifts the gears with deliberate smoothness, and the transmission control unit is programmed to perform early upshifts to keep engine speeds as low as possible. At the same time, the AMG SPEEDSHIFT MCT 7-speed sports transmission met the most demanding requirements where driving dynamics are concerned: fast and precise multiple downshifts ensure first-class agility in conjunction with the automatic rev-matching and RACE START function: this enables the E63 AMG driver to call on the maximum acceleration potential automatically.

Electronically controlled damping system and a new front axle

Sporty or more comfort-oriented? The driver of the new Mercedes-Benz E63 AMG is not obliged to accept any compromises in this respect. The AMG RIDE CONTROL sports suspension copes equally well with the dynamic cornering of the racetrack and more comfortable, sedate driving. High performance and typical Mercedes long-distance comfort go together as an extraordinary synthesis in the E63 AMG. This is made possible by the newly developed AMG RIDE CONTROL sports suspension. While new steel spring struts are used on the front axle, the rear suspension features AMG-specific air springs. The advantage of this solution, which is exclusive to AMG, is that the front spring struts ensure more sensitive responses while the rear air struts with their automatic level control system keep the vehicle at a constant height, irrespective of the load.

A new, electronically controlled damping system automatically varies the damping characteristics according to the driving situation, reducing the roll angle of the body. The result is instant adjustment to provide the best possible ride comfort together with the greatest possible agility. In addition, the driver is able to choose between the three suspension modes of Comfort, Sport and Sport plus at the touch of a button. The E63 AMG is also equipped with a newly developed, unique front axle with a 2.2 inch (56 millimeter) wider track, a tubular stabilizer bar, new control arms, new wheel bearings, newly-designed bushing geometry and kinematics and new wheel location for more negative camber – thereby providing more grip when taking turns at speed. The AMG-specific kinematics also ensures significantly more precision. This is a highly sophisticated axle design whose principle has already proved its worth in the C63 AMG. The rear axle likewise has more negative camber, optimized elastokinematics and a new subframe mounting for greater stability at the physical limits.

Newly developed power steering and individual 3-stage ESP®

For more direct responsiveness, the speed-sensitive rack-and-pinion steering is also a new development. The steering ratio of 14 : 1 is 22 percent more direct (quicker) than in the standard production models, while a more rigid steering column plus the reconfigured characteristic mapping of the speed-sensitive servo assistance ensure better steering precision and improved road contact.

The 3-stage ESP® familiar from the SL63 AMG and C63 AMG enables individual settings to be selected – with clear benefits in terms of driving pleasure combined with the same high level of handling safety. The ESP® key in the AMG DRIVE UNIT allows the driver to choose between "ESP ON", "ESP SPORT" and "ESP OFF" – with the currently active mode shown in the central display of the AMG instrument cluster. Perfect deceleration even during performance driving is ensured by the AMG high-performance braking system with 14.2 inch, internally ventilated and perforated brake discs all-round. Particularly resistant, motorsports-tested compound (two-piece) construction technology is used at the front axle. Outstanding grip is ensured by the 18-inch AMG light-alloy wheels with a width of 9 and 9.5 inches and mixed tire sizes of 255/40 R 18 at the front and 285/35 R 18 at the rear.

Decidedly dynamic interior and exterior

The purposefully dynamic design of the E63 AMG is fully in keeping with the vehicle's impressive technology. The front aspect is characterized by 17-millimeter wider fenders bearing "6.3 AMG" lettering, the new AMG front apron with large intake air apertures and the AMG-specific daytime driving lights in LED technology. In conjunction with the optional Bi-Xenon Headlamps with Active Curve Illumination, the E63 AMG is equipped with tinted main headlamps.

The striking visual presence is further enhanced by the AMG side skirts and AMG rear apron with a black diffuser insert. As a hallmark of the brand, the AMG sports exhaust system has two newly designed, chrome-plated twin tailpipes.

The new interior of the E63 AMG is an exciting blend of high-grade materials and functional sportiness. Exclusive features include electrically adjustable AMG sports seats with improved lateral support and the AMG sports steering wheel in a four-spoke design with AMG shift paddles. As a completely new feature exclusive to the E63 AMG, the AMG

selector lever has one-touch logic. Directly adjacent to it in the center console is the AMG DRIVE UNIT, which provides adjustments for the MCT sports transmission, the ESP functions, the suspension setup and the AMG driving modes. Standard equipment also includes high-grade leather upholstery in three different colors, the AMG instrument cluster with an AMG main menu, door entry sills with AMG lettering and a sports pedal cluster – both in brushed stainless steel.

Even more individuality with tailor-made AMG extras – Customers can select the optional AMG Performance Package, which includes the following: Lightweight, forged 19-inch AMG light-alloy wheels with size 255/35 R 19 tires at the front and 285/30 R 19 at the rear – AMG Performance suspension with stiffer spring rates – AMG rear axle locking differential with 40 percent locking action – AMG Performance steering wheel in a three-spoke design – Top speed raised to 186 mph – Active and passive safety at a new level

The E63 AMG traditionally meets the very highest expectations with respect to active and passive safety. Standard features include the new drowsiness detection system ATTENTION ASSIST, the unique preventive occupant protection system PRE-SAFE®, Brake Assist PLUS, eleven airbags and crash-responsive NECK-PRO head restraints. Optional safety features can bring the vehicle to a level unprecedented in this class with Lane Keeping Assist and Blind Spot Assist systems, the PRE-SAFE® Brake with an automatic emergency braking function, Adaptive High Beam Assist and Night View Assist PLUS.