

MERCEDES-BENZ

E63
AMG WAGON

"Honey, I'll pick up the groceries. Be back in about five hours..."

BY ANDREW BORNHOP » PHOTOS BY MARC URBANO

THIS IS A STORY ABOUT A CAR—THE SLEEK, fast, expensive and rare Mercedes-Benz E63 AMG Wagon. Yet it's just as much about an engine—an AMG-designed and -built 6.2-liter V-8 that defines this hunkered-down E-Class wagon, transforming it into a blisteringly fast BMW M5 fighter.

We're not kidding. The 507-bhp E63 Wagon is that quick, hitting 60 mph in 4.1 seconds, a time that matches the almighty M5 and outpaces the Z51 Chevrolet Corvette we tested in January. And in the quarter mile, where you might expect the V-10-powered Bimmer to pull away, this *station wagon* stays apace with the paddle-shifted Bavarian sports sedan, blasting through the line in 12.4 sec., albeit with a 1-mph-slower trap speed.

Fun stuff, for which we have Rainer Laukemann to thank.

Don't know Rainer? He's the AMG technician who hand-built the 90-degree V-8 in our particular Capri Blue E63 Wagon test car. We know this, because he signed the plaque on top of the powerplant, which masterfully blends large displacement (6208 cc) with an ability to rev (7200-rpm redline). Compared with the supercharged 3-valve-per-cylinder 5.4-liter V-8 in the E55 AMG wagon we tested in December of 2005, this new 4-valve powerplant puts out more bhp (507 bhp at 6800 rpm versus 469 at 6100) and a bit less torque (465 lb.-ft. at 5200 rpm versus 516 at 2650). Although the torque peaks at relatively high rpm, the powerband is plenty broad, with 369 lb.-ft. on tap at only 2000 rpm.

The aluminum-block engine, with a rigidity-enhancing bedplate, is a marvel. Benefiting from AMG's expertise with race engines, this closed-deck V-8 has a high 11.3:1 compression ratio, a forged counterweighted crankshaft spinning in five main bearings, cracked-steel connecting rods and cast lightweight pistons cooled from below by oil-spray nozzles. The

bore is large in relation to the stroke, helping the powerplant rev, and the cylinders are coated via a unique process involving a molten metallic spray (using a pair of wires, high current and an atomizing gas) that forms an extremely low friction surface that's twice as hard as a conventional cast-iron cylinder liner.

Also slick is the E63's two-path magnesium intake manifold, which broadens the powerband by lengthening the air path for improved low-rpm torque and shortening it for better high-rpm power. This manifold, together with variable valve timing on both chain-driven camshafts—plus straight-shot vertical intake and exhaust ports—assures excellent cylinder filling for maximum power production. An oil cooler keeps oil temp in check, and the Bosch ME 9.7 engine management does some fascinating stuff, including keeping the coolant at 80 degrees Celsius in partial-load conditions to minimize internal friction and maximize fuel economy. Yet when the engine is under more load, the ECU changes the coolant temperature in milliseconds to 100 degrees Celsius, for better cooling.

That's high tech, as is the E63's AMG Speedshift 7-speed automatic gearbox, which features aluminum shift paddles behind the steering wheel that are cool to the touch and operate with a precise feel. Three shift modes are on call: Comfort, Sport and Manual. In Comfort and Sport, the E63 takes off in 2nd gear, so abundant is the torque, and the shifts are so smooth that they are easier heard than felt, occurring at higher rpm in Sport. In Manual, the E63 starts off in 1st and will smoke its rear tires at will (ASR traction control off, of course) and bounce off the 7000-rpm rev limiter if the driver isn't quick enough with the right upshift paddle. This wagon feels especially sporty in Manual—it might have something to do with that heavy push in the back—but drivers can tell

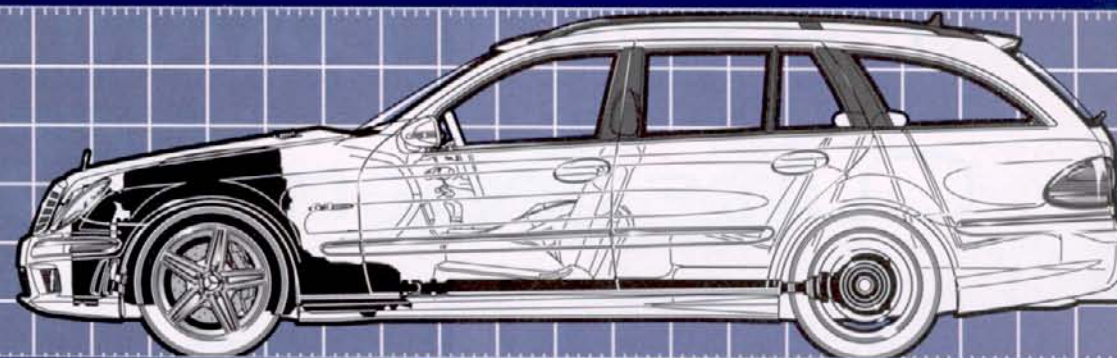


Mercedes-Benz E63 AMG Wagon

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SCALE: 10 IN. (254 mm) DIVISIONS
DRAWING BY TIM BARKER

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that the E63 has an automatic being shifted manually, not a manual with paddle shifters as found in a Ferrari or Maserati, or a DSG gearbox in a VW or an Audi. Moreover, the Mercedes 7-speed doesn't blip the throttle to smooth downshifts, something you might expect in a \$93,660 automobile.

That's a big hit, but this a special car. AMG-tuned Airmatic suspension gives the E63 an aggressively low stance, enhanced by staggered tires—245/40ZR-18s front, 265/35ZR-18s back—that fill the wheel wells nicely. The suspension tuning is 20 to 30 percent stiffer (and with larger anti-roll bars) than that of the E550 Wagon. Comfort mode is best for everyday use, but Sport is by no means too stiff, both delivering a well-snubbed ride. Braking duties are handled more than adequately by the vented and drilled 14.2-in. front rotors, which are acted upon by fixed 6-piston calipers. The 13.0-in. rears have 4-piston calipers, and even though the E63 (like the previous E55) features electronic control of the brake hydraulics,

simply because its tires are smaller.

Getting into an E63 AMG Wagon involves a step down into a very low seat. The view forward is excellent, what with the car's low cowl and thin A-pillars. Looking into the rearview mirror, you'll see the Alcantara headliner stretching all the way rearward, doing a great job of impersonating suede. And speaking of leather, the E63 has lots of it, gathered attractively on the door panels and covering the AMG sport seats, which have larger side bolsters covered in softer hides. The seats remain firm in the M-B tradition, but are far more supportive than stock, with enough width for larger drivers. Head room is also generous, even with the E63's standard sunroof. In back, the E63 Wagon's luggage area—useful only when the rearmost seat is folded flat into the floor—is attractively lined with carpet, and it has a motorized cover that automatically puts your valuables out of sight when the power liftgate is closed.

On the road—if you can force yourself to think about something other than the prodigious power—E63 drivers will find the typical slow-ratio Mercedes steering, but with just the right amount of assist and feedback to make the driver an integral part of the equation. And although the car is entirely at home in everyday commuting, where from the driver's seat it suddenly becomes a sports sedan that just happens to have a wagon body. In this situation, for all but the best drivers, traction and stability control really are your best friends, as the E63 Wagon begins feeling smaller and more agile the faster it's driven.

Inside, the AMG gauge package features a 200-mph speedometer flanked by an analog clock and tachometer. COMAND, Mercedes' multifunction controller and DVD navigation system (replete with a 184-page manual), is getting better, but most of us still wish it were more intuitive, or that M-B engineers would spend some time in a Toyota or a Honda to see how others have managed with better success.

Nevertheless, the E63 AMG Wagon is one seriously fine ride. It's rare; not all Mercedes dealers in the U.S. will even get one, meaning you'll likely have to order one without test driving it. So take it from us: You'll dig it, just like we did. Loaded with the latest safety equipment, the E63 AMG Wagon works just fine schlepping the kids to and from school during the week. Yet on weekends, it relishes handing stock Corvettes their lunch at the local drags.

'Tis a pity, but the P30 Performance Package, a \$9000 option that includes a limited-slip differential and a speed limiter that kicks in at 186 mph instead of 155, is available only on the E63 AMG sedan. We suspect several E63 AMG Wagon owners will find a way around that problem...

»Big power, big brakes, big fun—and a roomy interior with abundant leather and richly finished wood. As for the 6.2-liter V-8 being called a 6.3, Mercedes chose to ignore math and have us recall the highly regarded 300 SEL 6.3 of the late 1960s.

great strides have been made in making the brakes feel more natural and less grabby.

If you peer underneath the back of the E63 AMG wagon, past the quad exhaust outlets, you'll see a heavily finned differential with high 2.65:1 final-drive gearing that makes one wonder what the car could do if it weren't electronically limited to 155 mph. And although there appears to be a well for a spare tire, our E63 has the optional \$995 rear-facing third-row seat for two, which means the car gets a fix-it kit instead. Of note, the E550 Wagon with the optional rear bench has room for a spare,



SPECIFICATIONS

PRICING

List price	\$85,400
Price as tested	\$93,660
Price as tested incl std equip. (ABS, dual front side & curtain airbags, traction & yaw control, AMG Airmatic suspension, AMG brakes, bodywork, steering wheel, sport seats; Nappa leather upholstery, paddle-shift 7-speed auto. trans., AM/FM/CD w/Sirius radio, auto. climate control, cruise control, pwr windows, mirrors, door locks, tailgate & sunroof, keyless entry, anti-theft system), Premium II Pkg (active front seats, DVD COMAND navigation, headlamp washers, bi-xenon active lights, rear sunshades, cornering foglamps, Keyless Go) \$3600, third-row seat (\$995), burled walnut trim (\$290), gas-guzzler tax (\$2600), dest charge (\$775).	

GENERAL DATA

Curb weight	4510 lb
Test weight	4680 lb
Weight dist (with driver), f/r %	1115 lb / 1225 lb 49% / 51%
Wheelbase	112.4 in.
Track, f/r	61.4 in./61.1 in.
Length	192.3 in.
Width	71.7 in.
Height	59.3 in.
Ground clearance	4.7 in.
Trunk space	24.4 cu ft w/third row folded

ACCOMMODATIONS

Seating capacity	7
Head room: Front	37.0 in.
Rear	38.0 in.
Seat width: Front	2 x 16.0 in.
Rear	47.0 in.
Front-seat leg room	45.0 in.
Rear-seat knee room	24.0 in.
Seatback adjustment	80 deg
Seat travel	9.5 in.
Third row: head room	31.8 in.
seat width	34.0 in.
leg room	32.3 in.

INSTRUMENTATION

200-mph speedometer, 8000-rpm tachometer, coolant temp, fuel level

SAFETY

front, side & curtain airbags, traction & yaw control, anti-lock brakes, front seatbelt pretensioners, front seatbelt force limiters (all standard equip.)

WARRANTY

Basic warranty	4 years/50,000 miles
Powertrain	4 years/50,000 miles
Rust-through	4 years/50,000 miles

ENGINE

Type/layout	aluminum block & heads, V-8, longitudinal
Valvetrain	dohc 4-valve/cyl, variable timing, chain drive
Displacement	379 cu in./6208 cc
Bore x stroke	4.02 x 3.72 in./102.2 x 94.6 mm
Compression ratio	11.3:1
Horsepower (SAE)	507 bhp @ 6800 rpm
Bhp/liter	81.7
Torque	465 lb-ft @ 5200 rpm
Redline/limiter	7200/7000 rpm (1st gear) 7200/7400 rpm (gears 2-4)
Fuel injection	elect. sequential port
Recommended fuel	premium unleaded

DRIVETRAIN

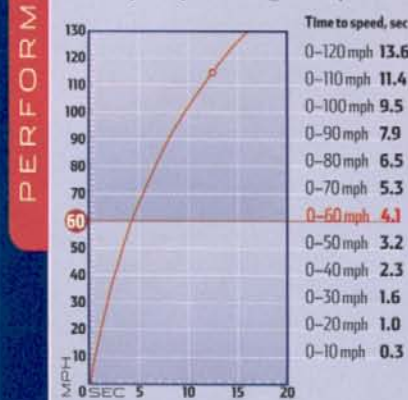
Transmission:	7-speed automatic		
Gear	Ratio	Overall ratio	(Rpm) Mph
1st	4.38:1	11.61:1	(7200) 40
2nd	2.86:1	7.58:1	(7400) 63
3rd	1.92:1	5.09:1	(7400) 94
4th	1.37:1	3.63:1	(7400) 131
5th	1.00:1	2.65:1	est (6350) 155*
6th	0.82:1	2.17:1	est (5200) 155*
7th	0.73:1	1.93:1	est (4650) 155*
Final drive ratio		2.65:1	
Engine rpm @ 60 mph in top gear			1800

CHASSIS & BODY

Layout	front engine/rear drive
Body/frame	unit steel
Brakes: Front	14.2-in. vented & drilled discs/6-piston fixed calipers
Rear	13.0-in. vented & drilled discs/4-piston fixed calipers
Assist type	vacuum, ABS
Wheels: Front	cast alloy, 18 x 8½
Rear	cast alloy, 18 x 9
Tires	Continental SportContact2
Front	245/40ZR-18
Rear	265/35ZR-18
Spare tire	puncture kit
Steering	rack & pinion, power assist
Steering ratio	14.7:1
Steering-wheel diameter	15.0 in.
Turns, lock to lock	2.6
Turning circle	37.4 ft
Suspension	Front: multilink, air springs/struts, anti-roll bar
Rear: multilink, air springs/struts, anti-roll bar	

ACCELERATION

Time to distance	seconds
0-100 ft	2.7
0-500 ft	6.9
0-900 ft	9.8
0-1320 ft (¼ mile)	12.4 @ 114.8 mph



BRAKING

Minimum stopping distance	
From 60 mph	118 ft
From 80 mph	210 ft
Total swept area	677 sq in.
Swept area/ton	300 sq in.

HANDLING

Lateral acceleration*	0.84g
Balance	moderate understeer
Slalom speed**	64.5 mph
Balance	mild understeer
Lateral seat support	very good

*200-ft skidpad; **700-ft slalom, 100-ft spacing.

FUEL ECONOMY

Our driving	14.2 mpg
EPA city/highway	14/20 mpg
Cruise range	285 miles
Fuel capacity	21.1 gal.

INTERIOR NOISE

Idle in neutral	50 dBA
Maximum in 1st gear	74 dBA
Constant 50 mph	63 dBA
Constant 70 mph	67 dBA

TEST CONDITIONS

Temperature	75° F
Humidity	45%
Elevation	350 ft
Wind	calm
Location	Irvine, California

0-60 mph	4.1 sec
0-¼ mile	12.4 sec
Top speed	155 mph*
Skidpad	0.84g
Slalom	64.5 mph

Test Notes: ACCELERATION

With the power this V-8 makes, it's best to leave stability control on for wheelspin modulation and let the 7-speed automatic dictate an optimal rpm shift point. For the launch, we power-braked just enough to load the transmission.

Test Notes: HANDLING

Mercedes did a great job of keeping as much weight rearward as possible, making this wagon as dynamically competent as it is functional. Its mass doesn't help it on the skidpad, but you can compensate with more throttle.

Test Notes: BRAKING

With massive discs and fixed calipers, the E63's brakes will handle just about anything. Pedal feel is comfortably firm and with a smooth initial bite that won't paint the windshield with your morning coffee.

AT A GLANCE