A Nearly Perfect Equation

Mercedes' new E50 seems absolutely perfect—faster and better in every way than the 500E—yet that may be its one drawback

by Larry Edsall

The interceding span of six years hasn't diminished the memory of that cool, sunny morning in Germany when the Mercedes PR guy pulled us aside. "There's a car I want you to drive," he said, pointing to the car parked in a line of perhaps a dozen or more vehicles. "I can't tell you exactly what it is, but you need to drive it, and I think you'll like it."

He was right. We liked the car—immediately—and our affection increased with each kilometer. Months later, we realized that the car we'd driven that morning in Germany, the one we had driven like a sports car on the two-lane country roads and like, well, unlike anything we'd ever driven before on the autobahn, that E-Class with flared fenders and big tires, was a prototype for the Mercedes-Benz 500E. Except that the prototype was even better than the production car that eventually came to the United States because it had a five-speed manual transmission and a suspension that allowed the car to lower at speed.

The 500E was officially launched in the U.S. market as a 1992 model, the product of a joint effort by Mercedes and its Stuttgart-area neighbor, Porsche AG.

"Remember the four-door that Porsche was going to build?" *AutoWeek* reported in an April 5, 1993, Driving Impression. "The 500E is probably the best facsimile we'll get, in spirit and in fact."

The 500E, or E500 as it was called later in its brief production life, was a car that automotive writers will use as a benchmark against every other high-performance sedan they drive for years to come, including Mercedes' own successor to the E500, the E50.

The E50 is a joint venture between Mercedes and AMG, the folks who brought us the Hammer (a legend in its own time) and the wonderful C36, and who make those wild, German touring car racers. Compared to the 500E, the E50 has a better chassis, a more powerful engine, an extra gear in its automatic transmission, bigger wheels and wider tires, and racing-bred brakes. The E50 weighs less, burns less fuel and will cost less (the target price is $70,000, or 10 grand less than the E500) when it finally arrives in the U.S. market, sometime in the fall of 1997 or very early 1998.

But . . .

As wonderful as the E50 is right now in Europe, and will be whenever it arrives in the United States, it still falls short of the 500E in one category: It lacks an edge. The 500E was something special, a brutish, beastly Mercedes-Porsche, perhaps the ultimate tuner sedan. Maybe it was the influence of Mercedes' cross-town partner. Porsche didn't just assemble an E500, it breathed in life, and there was a thrilling wildness, an edge to the car, just as there was to a 911 Turbo of the same generation.

The E50 comes off an assembly line, albeit a special line at another special place, AMG, but it rolls off so smooth and so refined, like any Mercedes sedan, that it insulates the driver from the full exhilaration of the car's power and potential.

That's not to argue that smooth and

Huge wheels and tires keep the E50 under control even when the AMG-tuned V8 unleashes 347 horsepower. Well-bolstered buckets do the same for the driver during cornering.

BURKHARDT HELWIG

refined are bad, especially not when they're part of a car that's even better than the best.

"Recently, Niki Lauda and Hans Herrmann drove the final, limited-production version of the E500, and the E50," an AMG spokesman says. "Both were astounded that AMG had improved on the 500E." The spokesman adds that Lauda and Herrmann, Grand Prix stars of the recent and distant past, were particularly impressed by the brakes and the solid feel of the chassis and suspension. "But," he adds, "the goal was to improve and beat the 500E in every aspect—acceleration, handling, fuel efficiency—and I think the numbers show it."

The numbers are overwhelming.

The E50, now available in Europe, earns its badge because AMG takes a 279-hp, 4.2-liter Mercedes V8 and strokes it to 5.0 liters. In addition to increasing displacement, AMG installs a revised cylinder head and sodium-filled valves, which are activated by a longer-duration cam, puts on a new, twin-pipe intake manifold and a complete exhaust system (from the headers to the twin tail pipes), and revises the engine management system. While the standard E420 has a 2.84 final drive, the E50 uses a 3.06 gear for better acceleration.

The 500E offered 315 horsepower and 347 lb ft of torque from its 5.0-liter engine; the E50 provides 347 horses and 354 lb ft, with maximum torque arriving at 3750 rpm, 150 sooner than in the old car, and with at least 295 lb ft of torque available all the way from 1800 revs to redline.

Though the prototype we'd driven six years ago in Germany had a five-speed manual, the 500E sold in the U.S. market came with a hydraulically controlled, four-speed automatic transmission. The gearbox in the E50 is Mercedes' new, electronically controlled, five-speed automatic.

Stopping the 500E were power-assisted discs (from the S-Class in front, the SL in the rear) with ABS, while the E50 (with ABS and ASR traction control standard) uses the rear brakes from the SL600 and borrows AMG's DTM race technology for its front brakes, which are suspended discs with dual piston sliding calipers. Twelve stainless steel pins separate each rotor from its wheel hub to provide better cooling and resistance to fade.

In place of the 500E's front struts, multi-link rear suspension and recirculating ball steering, the E50 has double wishbones up front, a multi-link rear and rack-and-pinion steering. And while the 500E rode on 255/55, Z-rated 16-inch tires, the E50 has 18-inch, directional-treaded Bridgestone S-02 rubber (a tire created for the new Porsche 911 Turbo, the only other car on which it comes as standard equipment). These tires are 225/45 fronts on 7.5 inch-wide, AMG alloy wheels, and 245/40 rears on 8.5 inch-wide AMG alloy wheels.

The 500E, as wonderful as it was, was built on an E-Class chassis developed in the early/mid-1980s, and designed for a straight six-cylinder engine, so Porsche made modifications to wedge in the V8 and fit flared fenders to make room for larger wheels and tires. The E50 is built on a wider, longer and stiffer chassis, designed from the start to accept a V8, and even with its huge tires, it doesn't need fender flares. It does have larger inner fenders than the stock E420 has.

Although the new E-Class chassis is bigger and better, the E50, at 3850 pounds, weighs five pounds less than the 500E. That lighter weight, plus advances in engine efficiency, help the E50 achieve a 19.6 mpg average in European regulatory tests, compared to 17.9 for the 500E. To the standard E-Class body, AMG adds an exterior trim package (front air dam, side skirts and rear apron), sport seats and an instrument cluster.

As we said, the numbers are overwhelming, and this one may interest you most: the E50 runs from a standing start to 60 mph in 5.9 seconds, 0.4 seconds less than did the E500.

All of the above numbers apply to the European E50. The one coming to the United States could be better, because the car won't come here until it has an all-new engine. Mercedes-Benz has invested $1.3 billion in a new engine plant that will employ 2000 people to build an all-new, modular family of V6 and V8 engines, as well as engines for the new A-Class. The mod motors include a 3.2-liter V6 (which will power the Alabama-built M-Class as well as German-built Mercedes sedans) and a 4.3-liter V8 that will supplant today's 4.2.

Mercedes won't say much officially about the new engines, but top-level sources reveal that they will be smaller and lighter than the current straight six and V8,

The front brake rotor design was developed for AMG's entry in German Touring Car races.

and will use three valves and two spark plugs per cylinder. Horsepower ratings will be similar to Mercedes' current range of engines, but the new engines will offer more torque at lower rpm, and will be approximately 10 percent more fuel efficient. For the American-edition of the E50, the all-new 4.3 liter will be expanded to displace at least 5.0 liters, and produce more than 350 horsepower.

Rather than federalize the current E50 for only one year, Mercedes will wait until it can put one of the new V8s into the car for the U.S. market. But that doesn't mean you have to wait to drive a V8-powered E-Class, even a sporty one (see sidebar).

While U.S. buyers can anticipate an even more powerful E50, there's nothing wrong with the current one. The E-Class is a rather large car for European roads, but the E50's modified suspension (firmer shocks and shorter springs) is so effective that the car seems to shrink as you drive it. The ride is taut without being harsh.

The E50 is offered in Europe with a two-tone interior that includes contrasting leather inserts for the upper doors, roof, seat bottom and back, headrests, shifter knob and steering wheel. We drove two E50s in Germany, one with white-on-black interior, the other with black-on-black (both had dark gray-colored wood trim). The contrasting version was loud to the point of being distracting, if not ugly; a dark blue-on-black version shown in the AMG catalog looks racy.

The AMG front sport seats have good side bolsters on both the back and bottom. Like other new E-Class cars, the E50's steering wheel both telescopes and tilts, so you can tailor the position of your seat and the steering wheel for proper fit.

The E50 makes no complaints when driven slowly but stylishly, around city streets, and it responds eagerly when the buildings and the speed limit fade into the mirror. Put your foot to the floor and the car emits a noise reminiscent of AMG's DTM racers. The tach needle makes a quick but smooth arc until it just taps the redline (6000 rpm), initiating an immediate shift to the next gear. Keep your foot in it and the needle retreats briefly before beginning another quick and smooth arc toward redline.

The communicative rack-and-pinion steering provides a direct and immediate response, and the driver has a good sense of what the suspension and tires are doing. The body is tight and the suspension firm enough to restrict roll, even in short, fast maneuvers. On two-lane roads, the five-speed automatic can be manually downshifted to keep the engine up in its broad power band, and you can use that power because the big Bridgestones seem never to approach the limits of adhesion.

Should things close down quickly, as they sometimes do on the autobahn, those racing-bred brakes slow you immediately, but without panic.

All the way from standing start to smooth stop, the E50 seems absolutely perfect. Yet that may be its one imperfection, the one category in which it's exceeded by the 500E. The 500E wasn't absolutely perfect, it had its flaws—but they only helped give the car that edge, that wonderful edge. ■

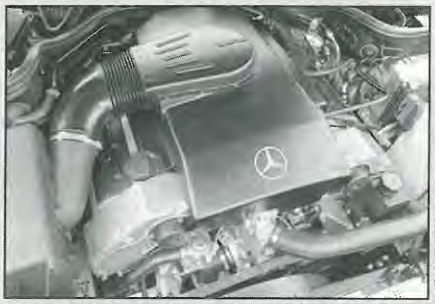
You don't need to wait for a V8

Mercedes offers an E420, even a Sport version

So, you want a sporty, V8-powered E-Class and you don't want to wait for the E50. Not a problem. You can go to your local Mercedes-Benz store and buy an E420. If that's not sporty enough, order one of the 1500 E420 Sport versions that will be available to U.S. customers this model year.

With its all-aluminum, 32-valve 4.2-liter V8 producing 275 horsepower and 295 lb ft of torque, all fed through Mercedes' new five-speed automatic transmission, the E420 is formidable.

The chassis and suspension on the E420 are virtually identical to our long-term E320 (*AW*, April 29), although Mercedes equips the E420 version with larger front brakes (12.4-inch diameter compared to 11.8) and standard ASR traction control. It's also 140 pounds heavier and rides lower, with 5.4 inches of ground clearance compared to 5.6 on the E320.



JIM FRENAK

Even in stock trim, the Mercedes-Benz E420 takes on a sporty nature, thanks to its V8 powerplant.

With a base price of $49,900, the E420 costs $6,400 more than an E320 with the same basic suspension and steering setup. But the payoff from the two extra cylinders, the one liter of displacement and the fifth transmission gear is obvious. The powertrain propels the 3745-pound vehicle from 0 to 60 mph in 6.7 seconds, which is 0.9 faster than the straight six. The V8's extra horsepower (58 more than the six) and torque (66 lb ft more) are most noticeable—and important—in the passing lane.

The E420 Sport package won't necessarily make your car faster, but it will make it look faster. Like the work that turns an E-Class sedan into an E50, the E420 Sport package is done by AMG, and it includes the same front air dam with projector-beam fog lamps, side skirts and rear apron as on the E50. There are also 17-inch AMG alloy wheels and 235/45 Z-rated tires.

This package costs $3,900. You may wonder why the price is so high, compared to the $790 for the C-Class Sport (*AW*, April 29), which includes much more: suspension pieces, a telescopic steering wheel with fast-ratio gear, seats and interior trim. The reason for the price difference, says Mercedes, is that the C280 Sport is built on the regular assembly line, and it doesn't include the expensive, AMG-installed fiberglass body cladding and the air dams that are used on the E-Class Sport.

If you don't think wheels, tires and cladding are worth the price, don't order the Sport package. The E420 is sporty enough without it. ■