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BUYER'S GUIDE



'BAHN STORMER

Built by Porsche, the 500E ushered in a new era of super sedans for Mercedes-Benz

BY TERRY SHEA • PHOTOGRAPHY BY DAVID TRAVER ADOLPHUS

It's hard to imagine a better combination of talent assembled to build a super sedan than when Mercedes-Benz and Porsche signed a deal to create the V-8-powered 500E in 1990. Battered by a recession and lots of Deutsche Marks lost to stillborn projects, Porsche was on the prowl for extra income; and Daimler-Benz, despite its capacity for massive output, simply was not geared up to produce a low-volume, bespoke car. It was a match made in Stuttgart, if not heaven.

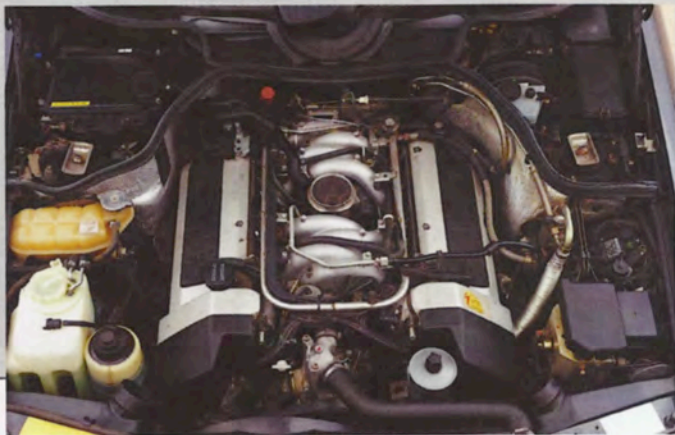
In many ways, the 500E is a 'parts-bin special that combined the drivetrain, sus-

pension and brakes of the 500SL roadster with the mid-size E-class chassis, until then never having been offered with any engine of more than six cylinders. Mercedes and Porsche combined to both engineer and build the car. Manufacturing the 500E involved shuttling the cars back and forth between Mercedes and Porsche factories in the greater Stuttgart area. Stampings from Mercedes-Benz and other suppliers were sent to Porsche for assembly, where the basic 300E chassis was strengthened and modified to accept the beefier V-8 driveline. Among the changes were fitment of flared

fenders to accommodate a wider track and wider tires. Bodies-in-white were returned to Mercedes-Benz for painting and trim, after which the car was returned to Porsche for driveline installation and final assembly. Before delivery, Mercedes-Benz got hold of the cars again for testing and delivery prep.

While it generally takes a few hours to assemble the typical modern car, shuttling one back and forth across a major metropolitan area over the course of two weeks costs a lot more money. When the 500E hit American shores as a 1992 model (European sales began with the 1991 model year), the

1992-1994 MERCEDES-BENZ 500E/E500



Porsche engineers and fabricators modified the 300E's chassis and unit-body to fit the much wider 4,973cc V-8 engine from the 500SL roadster.



Wheels are not original 500E pieces, but instead from a similar vintage, sporting Mercedes-Benz. Many have long since shed the original alloys.

price was \$80,000 (a 300E cost \$49,500), a then princely sum capped with a gas guzzler tax of as much as \$2,600. Between the 500E sold in the 1992 and 1993 model years and the re-badged and freshened E500 sold in 1994, Mercedes-Benz USA delivered approximately 1,505 cars out of a little more than 10,000 cars sold worldwide. All were handsomely equipped with far more standard equipment than the typical 300E, befitting the high price.

With 322hp and 354-lbs.ft. of torque from its 4,793cc V-8 engine, the 500E was among the fastest cars of the day. But its visual

stance did little to reveal its athleticism. It was the proverbial Q-ship, a car so subtly different visually from the typical European taxicab that it took someone in the know who could recognize those elegant fender flares, that inch drop of the suspension and those larger, 16-inch wheels to see that the car was special. On the inside, every one of them was outfitted with four leather-clad Recaro seats—buckets for everyone!

The W124 E-class sold from 1985 through 1995 has proven a phenomenally durable platform. The 500E is no exception, despite its high-performance pedigree. Stories of

original engines cresting 200,000 miles and more are common. But, like any Mercedes-Benz, the 500E is not a maintenance-free appliance. Without regular service and extra attention paid to a few known issues, the cost to return a tired 500E to its former glory can very easily eclipse the cost of buying the car itself. As Gerry Van Zandt, who runs 500eboard.com and has extensive knowledge of the 500E points out, "The most expensive car you can buy is a cheap Mercedes. Spend your money up front."

The front suspension was lifted more or less wholesale from the 500SL roadster, as

MARKETPLACE

Car Buyer's Guide

Specifications

Engine	4,973cc DOHC V-8, aluminum block and cylinder heads; four valves per cylinder
Horsepower	322 @ 5,700 RPM
Torque	354-lbs.ft. @ 3,900 RPM
Fuel system	Electronic port fuel injection
Transmission	Four-speed automatic
Length	187.2 inches
Width	70.7 inches
Height	55.4 inches
Wheelbase	110.2 inches
Curb weight	3,935 pounds

Production

Total (Officially imported into the U.S.)	
1990	46
1991	2,566
1992	4,416 (633)
1993	1,596 (498)
1994	1,735 (374)
1995	120

Of 10,479 cars produced, 1,505 were officially imported into the U.S.

Performance

0-60 MPH	5.5 seconds*
¼-mile	14.1 seconds @ 101 MPH*
Top speed	155 MPH (electronically limited)
MPG	14/17 (city/highway per EPA)

* Source: *Car and Driver*, April 1992

Price Guide

Low	\$6,000-\$9,000
Average	\$11,000-\$14,000
High	\$18,000-\$24,000



BODY

From a distance, the 500E looks like every other W124 E-class made from 1985 through 1995, but get a little closer

and those subtle, yet sinister, fender flares are clearly noticeable. That generation will always have a solidity to it that seems unmatched by more modern Mercedes efforts.

Along with the flared fenders, a lower stance gives the 500E a look not found on other contemporary factory efforts from Mercedes-Benz. The 1994 model year marked significant changes in the 500E, including changing its name to E500. But 1994 also marked the debut on all W124s of a European-style, fully integrated front end that makes for a more handsome effort.

Other than from untreated damage that has cracked the paint, the 500E's steel body panels are rather robust and rust is hardly an issue, just as with any other well taken care of W124.



INTERIOR

The dashboard and doors are largely as they were on the standard 300E, save for the use of a different type

of wood on the 500E sedan and later coupes and convertibles in the series. The 500E also had an electric rear sunshade. But the biggest difference, and a unique part of the 500E's interior, was the use of Recaro Sportline seats for all four passengers. Like the fronts, the rear seats are Recaro buckets, giving the second row the same sort of support the front row got and a luxurious touch not found on any other W124 sedan from the factory.

The most problematic part of any W124 interior is the failure-prone air-conditioning evaporator coil, which is buried deep under the dash against the firewall and requires complete removal of the dash and an expensive part to replace as well. It is not a job for the faint of heart and can run several thousand dollars.





ENGINE

The 32-valve, four-cam, 5.0-liter W119 engine, though largely related to the mill found in the contemporary 500SL and 500S sedans, features a few differences, which give it the same 322hp rating, but with a better punch of torque.

Up to this point, the big alloy V-8s from Mercedes featured Bosch KE-Jetronic fuel injection, but the 500E was the first to use LH-Jetronic, which included a mass airflow sensor. The programming of the LH-Jetronic system is unique to the 500E, and the computer modules cannot be interchanged with later iterations from the 500SL and 500S that adopted it. Using longer intake runners, the 500E's engine produces 354-lbs.ft. of torque, up 22-lbs.ft. from the 300SL.

With the elimination of full-throttle enrichment programming for 1993 and 1994 model years (the EPA apparently frowning on it), power was reduced to a 315hp peak, but driving characteristics are largely the same in most situations.



TRANSMISSION

Like the W119 engine, you only got one choice in transmissions with the 500E, which really doesn't make it that much of a choice at all. Fortunately, the Mercedes-Benz 722 automatics have proven reliable and durable when cared for. While largely similar to the gearboxes found in virtually every other automatic-equipped M-B passenger car of the day, the one found in the 500E has been beefed up to better handle the torque of the 500E's engine.

Like any other part of a W124—or any other Mercedes for that matter—the transmission is not maintenance-free. Look for records that indicate a flush and filter change every 30,000 miles or so.

All 500Es came equipped with a 2.82:1 rear-axle ratio, which may seem relatively tall for such a sporting car, but the Benz's bodacious torque still offers plenty of twist for rapid acceleration.



BRAKES AND SUSPENSION

Like so many other parts of the car, the brakes are sourced from other Mercedes-Benzes, particularly the 500SL. With 11.8-inch vented rotors up front and 10.9-inches out back, the 500E impressed contemporary road testers when new, but the binders are far from perfect.

The 500E has earned a reputation for going through rotors and producing lots of dust with its factory parts. Also, the earlier aluminum calipers would tend to vibrate as the pads and rotors wore. Starting in the middle of the 1992 model year, cast-iron calipers were fitted, which solved that vibration issue. The last E500s imported in 1994 used the larger, uprated front brakes from the V-12-powered 600SL roadster, giving the car a bit more stopping power.

The front suspension is largely 500SL hardware, and the rear uses hydraulic, self-leveling struts with a remote pump under the engine that also serves as the power steering pump.



MARKETPLACE

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Parts Prices

A/C Evaporator (rebuilt)	\$150
Alternator (rebuilt)	\$220
Brake caliper (front, rebuilt).....	\$150
Brake rotor (front)	\$105
Brake rotor (rear)	\$70
Distributor cap.....	\$135
Distributor rotor	\$45
Door lock mechanism (front).....	\$290
Door lock mechanism (rear)	\$195
Fan shroud (lower).....	\$170
Fan shroud (upper)	\$85
Fuel level sending units	\$120
Fuel pump	\$105-\$170
Grille assembly	\$130
Hood	\$200
Hood badge	\$40
Transmission mount.....	\$85
Transmission oil pan.....	\$50
Turn signal lens (front).....	\$60
Turn signal switch.....	\$65
Water pump	\$105
Wheel bearing kit (front)	\$90
Vacuum pump	\$380

Specialists

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Unique to the 500E was a four-place passenger cabin that used Recaro Sportline bucket seats front and rear, giving the car another unique characteristic among W124 E-class machines.

were the brakes, which feature 11.8-inch front and 10.9-inch rear discs. For the 1994 model year, they used the larger 12.6-inch brakes from the V-12-powered SL600 as standard equipment. Unique among W124 sedans, the 500E rear used the self-leveling hydraulic suspension that Mercedes incorporated into the 300TE wagon. It featured hydraulic struts in lieu of conventional shocks. It was all very Citroën-like of Mercedes-Benz, but required a stout tandem pump under the hood that supplied hydraulic pressure to both the power steering system as well as the rear suspension.

Perhaps the 500E's Achilles heel, which affects all W124s, is the failure of the two-part wiring harness found under the hood. "Probably the most common issue people end up facing," says Gerry, "relates to the upper and lower wiring harnesses in the engine bay. Back in the early 1990s, Mercedes mandated the use of more biodegradable and recyclable components in their cars. They specified, starting around 1991, for all Mercedes-Benz models to use wiring bundles that pretty quickly became brittle because of materials used in the insulation of the wiring. When that was used with the harsh conditions and heat of the engine bay of various cars, the wiring tends to crack and flake." When that insulation cracks and wires start touching and connecting where they're not supposed to, shorts occur and the results can leave the car with everything from untraceable and wonky electrical issues to fried engine or ignition computers. Fortunately, replacement harnesses, made by Delphi, are available; they range from \$600 to \$900 each, and take roughly two to three hours to replace by an experienced hand.

Perhaps the most difficult trouble spot on any W124 involves the air-conditioning evaporator coil, which is prone to leaking and is buried deep behind the instrument panel and up against the firewall. Once this leaks, the climate control system's effectiveness is essentially non-existent. Replacement is a tedious job, requiring complete removal of the dash, and can take 20 hours or more to complete. It is a several thousand dollar job and most definitely not for the novice.

Fortunately, the hard parts in the driveline are well made, albeit with a few trouble spots. "The engine is extremely robust," says Gerry. "In the 1993 and 1994 cars, they used small plastic cam oilers at the cam lobes, instead of the metal ones used on the 1992s, and each cylinder has two of them. They are about \$30 apiece to replace. What happens is that these little plastic tubes tend to pop out over time and mileage. You'll hear a ticking noise under the hood. It is not actually that detrimental and it doesn't hurt the cams. You know things are still getting oiled. But the valve covers have to come off and it's a job that has to be done, once, eventually." But otherwise, the engine is, indeed, robust, with six-figures practically break-in mileage. Electronic ignition modules, EZL in Mercedes-speak, are hard to come by, but common to other W119 engines. However, the fuel-injection computer for the LH-Jetronic system is unique to the 500E and carries a premium for either a salvage yard find or a rebuild.

Mercedes-Benz transmissions, when correctly maintained, will match pace with their engines for longevity. Look for service records indicating regular lube and filter change intervals of 30,000 miles or so for the 722.3 four-speed automatic. Although

fourth gear is a direct 1:1 ratio and not overdrive, a 2.82:1 final-drive ratio only makes the car run 2,225 RPM at 60 MPH in top gear. Gas mileage in the mid-teens is typical, perhaps a bit higher if you can stand holding back some of the accelerative force. But a 23.8-gallon fuel tank gives the car decent range.

There are known issues with the reverse clutches. "You'll hear a clicking noise when you go into reverse and it will be very slow to engage," Gerry tells us. "You might go two to four seconds shifting from forward to reverse. It's very reticent to go into gear. That sound comes from the B2 clutches for the reverse gear. The transmission has to come out. Those clutches need to be replaced. The good thing is that they are right at the front of the transmission. You usually have plenty of warning before it happens. That's about a \$2,000 job to replace that."

If you get the idea that some of the repair jobs can be big bucks, then it might explain why there rarely seems to be any shortage of what seem to be reasonably priced cars on the market. A quick check found cars available in all parts of the country, including cars listed for sale in the pages of *Hemmings Motor News* and at auction. However, if previous owners have been lax about maintenance that can only be described as essential for these cars, the bills might start adding up quickly. A sub-\$10,000 car that seemed like a steal might suddenly become a very sobering reality awash in expensive repairs.

One of the more amazing traits of a car that was fast enough to keep up with a contemporary Corvette or Porsche 911 Turbo

is its ability to be as docile around town as a common 300E, the very definition of a refined luxury sedan. When driving the 500E, if you don't ever lean into the go pedal, you might never know the difference. Ironically enough, that characteristic left one former owner we talked to feeling a bit cold about the car, as he used it as a regular commuting vehicle, largely in traffic, rarely getting the chance to really open the throttle and enjoy all 322 horses. We might tend to blame the traffic, but his experience points out that if you are going to invest in a car like this one, old enough to be a classic, but still modern enough to be driven daily, then you had really ought to consider its intended use. After all, as marvelous a machine as it is—and it is marvelous—a 500E may require significant investment to keep it on the road.

The 500E was not Mercedes' first foray into the big-engine-in-a-smaller-car rodeo. The 300 SEL 6.3 of 1968 through 1972 (Buyer's Guide, *HS&EC* #2, November 2005) was exactly such a car and a bona fide classic in its own right. Since the 500E, Mercedes-Benz has purchased AMG, which makes plenty of seriously fast sedans, with power levels long ago eclipsing the Porsche-built special. Even non-AMG models bring more performance, better mileage and more amenities than the 1992 model. So, while the 500E is already a classic to many, to others, the market just treats it as a used car. The upside is, that leaves opportunities for collectors who are willing to find the right car and realistic enough to realize that keeping it in top shape may require a continuing investment. 🌐

Viewpoint



The 500E had been a car I always wanted to own. Unfortunately, I told a friend of mine what I was looking for, which has gotten me into trouble a few times. And sure enough, he found an excellent car.

The 500E was just one of the interesting, big-motored Mercedes sedans that I had always found interesting because I think Germans have a sense of humor going back to the 300SEL 6.3, which I also own. This 500E has a big V-8 engine in a smaller sedan. It doesn't look like it's as fast as it is. That thing on open country roads is an

absolute hoot because it is so fast and builds up speed like a freight train—tons of torque. At 120 MPH, it is quiet, it is smooth and it doesn't vibrate. It's such a competent car.

The W124 was just such a great chassis to begin with. With this engine in this car, it's a sublime driving experience. It's just so good. It's a fantastic driving car.

To most people, it looks like a taxi and I like that. I don't mind that most people don't know what it is. Unless I am doing 120 MPH, it's just like driving any other car. It's just so good, it's almost boring.

—Chris Dezevallos

Club Corner

Mercedes-Benz Club of America

1907 Lelaray Street
Colorado Springs, Colorado 80909
800-637-2360
www.mbca.org
Membership: 30,000; Dues: \$49/year

Recent Ads

1994 Mercedes-Benz E500: I have owned and maintained this E500 since 1996. All original paint, except bumpers, and excellent all original interior. Upgrades include 17-inch AMG Monoblok wheels and Alpine sound system. Just serviced and ready to go. \$15,500.

Source: Hemmings Motor News

1993 Mercedes-Benz 500E: Excellent condition; 192,000 miles. Automatic transmission, ABS (4-wheel), A/C, power windows, power door locks, cruise control, Bose premium sound, 7-inch touch screen, DVD player. \$5,300 or best offer.

Source: Craigslist

Mercedes-Benz: 1992 500E: Recent extensive refurbishment, \$12,000 invested, runs extremely strong, second owner, completely disassembled for restoration paint, updated with 1994 front end, headlamps, taillights and trunklid; all moldings, trim, hardware, door handles and mirrors, boots replaced with factory new parts; new headliner; brakes upgraded to SL600-spec as with 1994 E500; extensive list of new parts, including wiring harnesses. \$18,900.

Source: Craigslist

1992 Mercedes-Benz 500E Sedan: A rare find! This car is absolutely beautiful and extremely well maintained. Very fast and fully loaded. Just serviced, including all fluids, true tune up, new rear suspension complete, and stainless steel brake lines. Car comes with original wheels and the AMG mono-blocks, a brand-new Mercedes-Benz car cover, brand new floor mats, complete service history, all the books, magazines from Mercedes-Benz of North America, a small but very tasteful update in the exhaust system, and the almost impossible-to-find sales brochure from 1991 written in German. A piece of automobile history for the true collector or the Mercedes-Benz enthusiast. 167,000 miles. The price is firm. \$14,600.

Source: AutoTrader.com