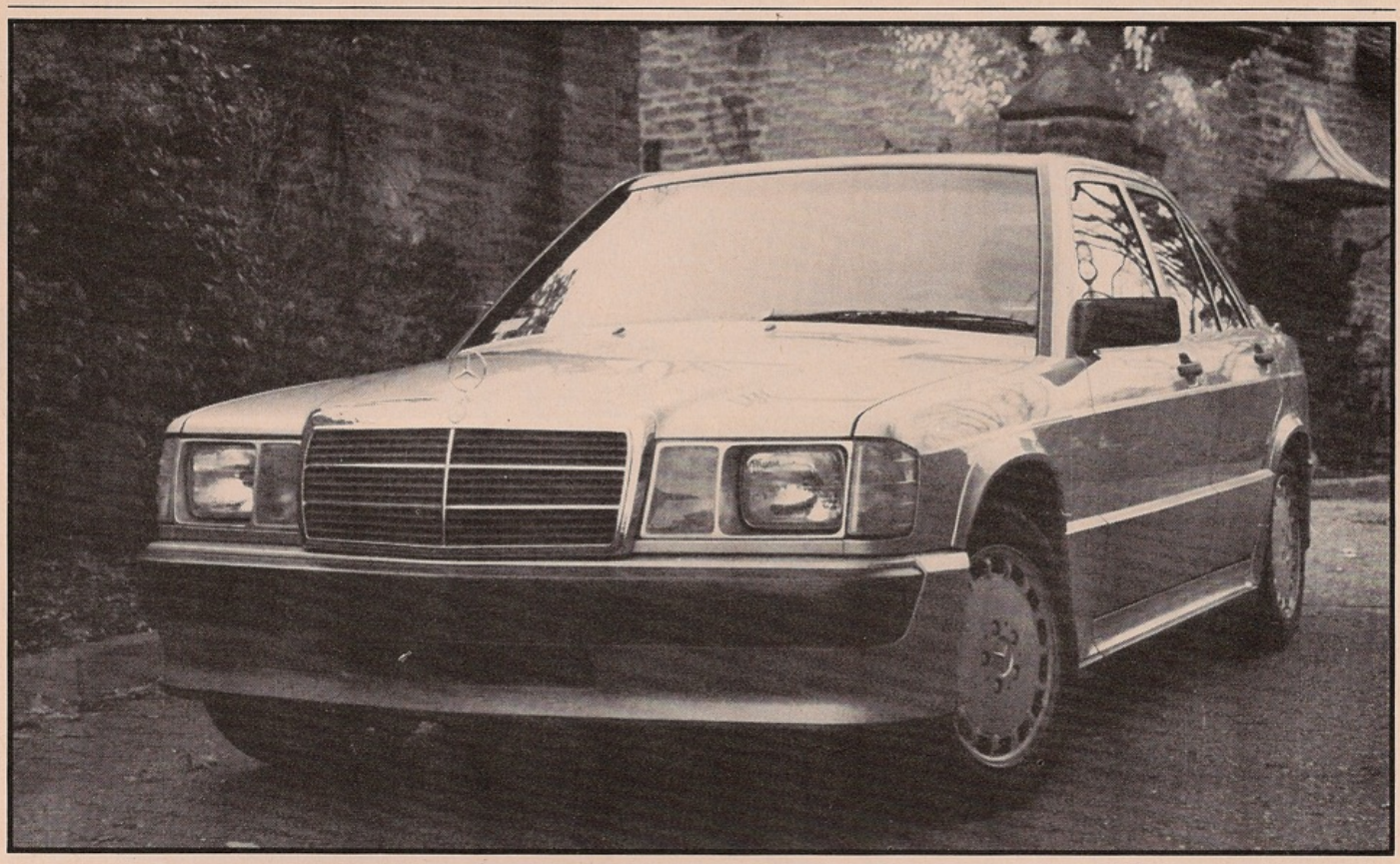


Mercedes-Benz 190E 2.3-16

Achtung, damen und herren! Meet ze Baron Rip-und-Tearin'!

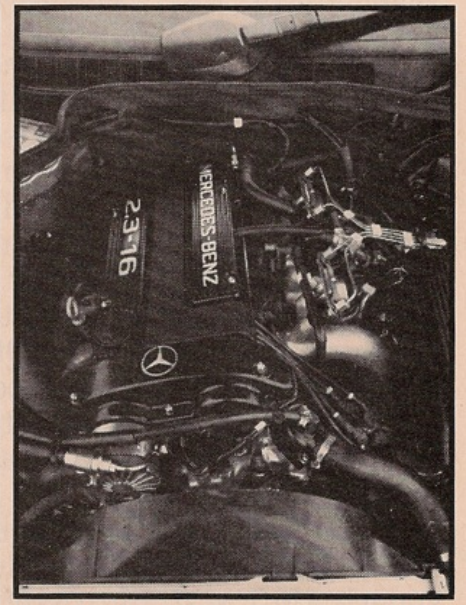
• Mercedes-Benz is back in the hot-rod business. After a few years of abstention due to the energy crisis, the emissions onslaught, and the belief that the United States suffered from an irreversible ennui that had drained its interest in fast cars, the Benz boys are hot. They are bowling into 1986 with five models capable of well over 130 mph, including this tough little 190.

How times change. Mercedes-Benz of North America has spent lots of everything trying to castigate publicly and castrate bureaucratically the gray marketeers that made a killing by importing and, after a fashion, federalizing the parent company's high-performance European models. Finally, though, the strategy has shifted in the beat-'em-*and*-join-'em direction. Now that hot cars are inarguably on the comeback, MBNA has decided to bring its light out from under a bushel.

The smallest luminance beamed over by Stuttgart is one of its brightest, the 190E 2.3–16. Only 1880 of these mini-marauders are aimed at us. Based on the pleasant but vapid 190E, the 2.3–16 wears the same four doors, but grows a dozen body pieces of fiberglass-reinforced polyurethane, many new suspension pieces, four sport seats, four bigger disc brakes, four squat 55-series tires, five more tightly spaced gears (four in the automatic), and cylinders fed and purged by the free-breathing efficiency of sixteen valves.

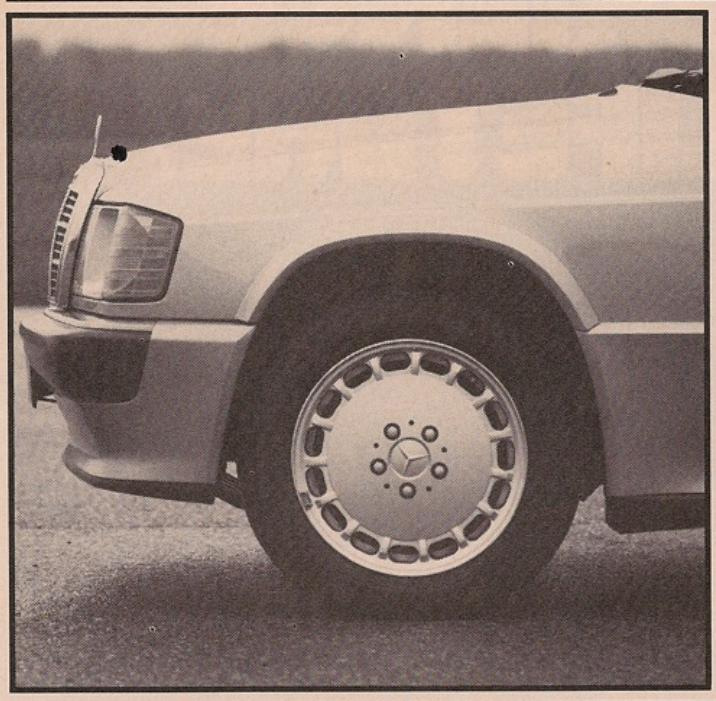
This wee hot rod is equally appropriate for outrage in the outback or popping up at the opera. We took a pass on culture and belted into the tufted hills of backwater Ohio. Zooted up in an air dam, fender and rocker extensions, a rear winglet, and fifteen millimeters of lowered ride height, we added insult to outrage by styling and profiling every burg we hit. But the burghers loved it. Despite the subtlety of its cosmetics, this four-door catches appraising eyes in the act. Nobody mistakes it for a gussied-up K-car.

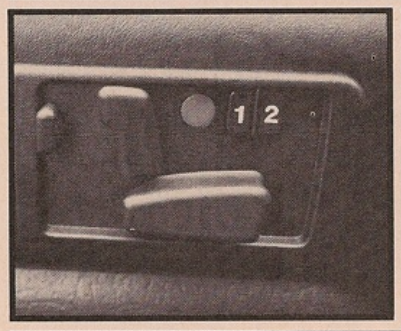
Naughty as the baby Benz looks in its Friday-night-fights trunks, the power play is in the engine bay. The 2.3-liter, twin-cam, sixteen-valve four-cylinder is rated at 167 horsepower, up 46 hp from the single-cam eight-valve. Bosch KE-Jetronic fuel injection feeds the fires, and the sophisticated valvetrain improves breathing efficiency by 25 percent, according to Mercedes. The factory also claims that the greater rigidity required in the more complex cylinder head increases its manufacturing time by a factor of ten. As is usually the case, this design positions the spark plugs in the center of pent-roof combustion chambers for optimum combustion and a naturally high resistance to detonation. Mercedes has made the most of this advantage with a high compression ratio of 9.7:1, although premium fuel is recommended.

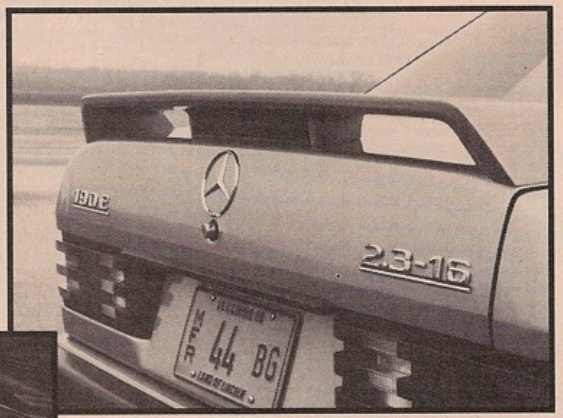


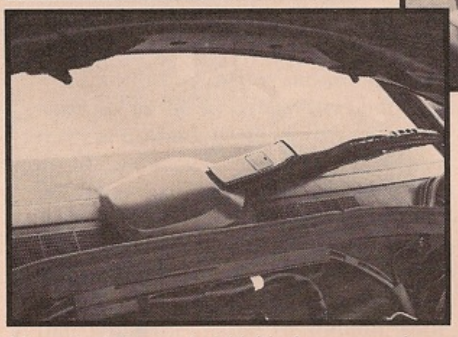
Except for the 18-mpg thirst for super unleaded rated by the EPA and confirmed in our own hard driving, the engine's high-

PHOTOGRAPHY BY AARON KILEY









Mercedes' single windshield-wiper arm reduces high-speed skipping by sweeping parallel to the airflow. The wiper's pendulumlike base houses planetary gears that extend the arm to sweep much closer to the upper corners of the glass than a single wiper normally allows.

rise revs come free. Judged by either the fifth wheel or the seat of your pants, the 2.3–16 is very quick. It springs from 0 to 60 in only 7.3 seconds. The quarter-mile burns into history in 15.8 seconds with a trap speed of 88 mph. The aero aids cut front lift by 45 percent, rear by 40 percent. Swept along by the 0.34 drag coefficient, one point better than the regular 190's, top speed rises to a stable 134 mph.

Cruising down a deserted road at a loping 80 mph, the engine sets up an easy howl. This is a great come-on for your foot, but doesn't help your ear gauge the gap from shift to shift. As in other sixteen-valvers, the rev rush is free of stress, so shifting by ear is difficult. Once you're used to the feeling of freewheeling around the tach, it's not bad, but the first few trips to peak performance may fall prey to a harsh, 6500-rpm ignition cutout that strangles the cry at the redline with little warning.

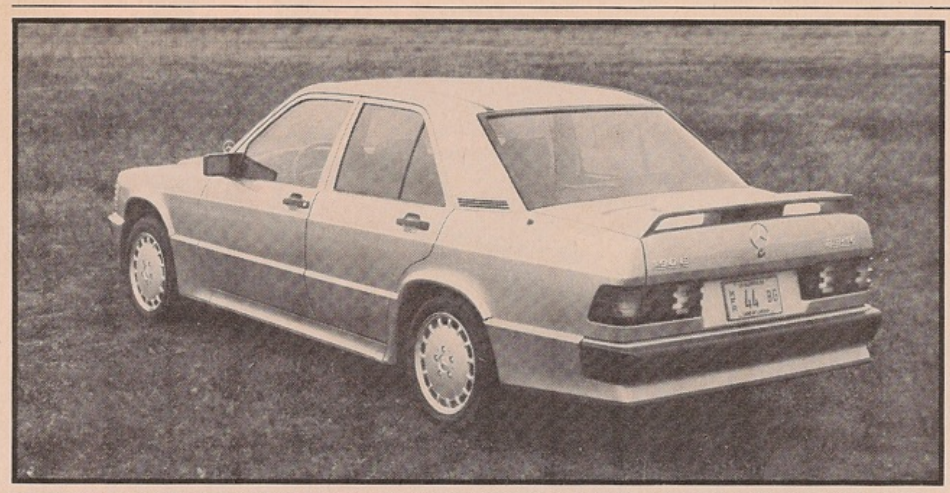
At Mercedes, more engine begets better chassis. At 0.80 g on the skidpad, the 2.3–16 is the hardest-cornering stock Benz we have tested, ranking well up among today's finest sedans. Firmer spring and shock rates, larger anti-roll bars, and automatic rear hydropneumatic load leveling give the 190's all-independent suspension new resolve. Upsized 7.0-by-15-inch wheels wear 205/55VR-15 Pirelli P6s. (Today's basic 190E wears 6.0-by-15s and 185/65s, which are bigger than the gear worn by the original 190E for our November 1983 test. That little mincer managed only 0.70 g on the skidpad. It also turned in a woeful 241 feet on the 70-to-0 brake test, which the 2.3–16's standard ABS system has cut by almost a third—but we're ahead of the story.)

The 16's suspension reacts softly in tight corners. It wants you to baby it, giving the weight a chance to settle each time you shift from straight-ahead travel. Bigger anti-roll bars would probably hurt the ride over one-wheel bumps, but they'd probably also help plant the tires better.

Driven in unfamiliar territory on tumultuous roads, the 2.3–16 shows two ranges of response. Understeer is modest at low speeds. At high speeds, the nose feels more reluctant to turn, and at first it can trick you into dialing in only about 80 percent of the steering you need. You run wide, then fix it with a bigger sweep of the wheel. A few mutters later, you discover that a squeeze of the throttle quickly coerces tighter cornering and reduces steering angle. Second-gear corners can be taken slightly tail-out with a purposeful poke of the quicksilver throttle. In the wet, there's enough poke to spin the car, but it's just as easy to squirt the proper amount of juice to the back wheels. As with many German rear-drivers, lift-throttle oversteer is also noticeable. It's handy at times, annoying at others. All in all, this is not a film-at-eleven car. It expects you to get in there and do your share.

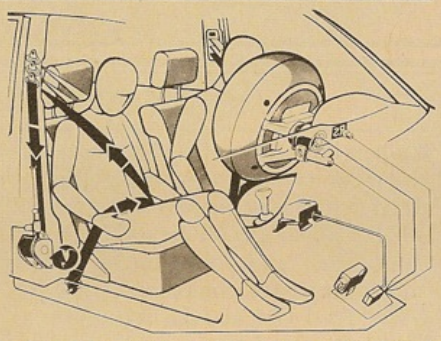
Dispatched to America's version of the autobahns, the Merc settles down nicely over 75 mph. When the landscape unfolds, the 2.3–16 becomes a low-flying Bunsen burner to be used for turning time into distance by holding speed's feet to the fire.

You can tell this is the small Mercedes-Benz just by sitting in it. Six-footers aren't outraged by its infringements on personal freedoms, but they are not thrilled by its snug rear seat, either. Picky about your driving position? You may have trouble fitting in quickly because of the wide range of choices you can power yourself through. Luckily, the seat-shaped buttons are a snap to use. Touch each part the way you want your seat to go—another button buzzes the headrests up and down—then punch the final combination into the memory. If



Technical Highlights

• The car industry, the federal government, and the consumer crybabies have been kicking the air bag around for the better part of a decade now, and the controversy may still be years away from its final resolution. One carmaker, however, does not intend to wait for the outcome. Starting with the 1986 model year, every Mercedes-Benz sold in North America will be fitted with an air bag on the driver's side.



Mercedes already has extensive experience with air-bag technology. Inflatable restraints have been optional on various European Mercedes since 1980, and on certain American models since 1984. In total, more than 90,000 Mercedes cars have been equipped with air bags.

The 190's air bag is mounted unobtrusively in the steering-wheel hub, and there is nothing particularly new or unusual about its operation. A sensor mounted in the front of the transmission tunnel is triggered by a forward deceleration roughly equivalent to a 12-mph collision into a rigid barrier. When so activated, the sensor signals a detonator that ignites a charge of sodium azide. The rapid chemical reaction that follows produces the large volume of nearly pure nitrogen gas needed to inflate the neoprene-coated nylon bag.

The entire process takes a mere 0.03 second, thus restraining the driver before his momentum moves him very far forward. As the driver hits the air bag, he forces its gaseous contents through slots around its sides, dissipating the kinetic energy of his forward motion. Within 0.10 second after inflation, the air bag is fully deflated. For about $1200, the air bag can be recharged and reinstalled for further use—provided, of course, that there is something left of the car.

Although air bags offer excellent protection in frontal collisions, they do little or nothing to restrain passengers in rollovers, side impacts, and multiple collisions. In such accidents, conventional seatbelts are far more effective, and Mercedes-Benz has taken a major step to make them even more beneficial: the same sensor that triggers the air bag also activates a small powder charge that removes the slack from both front belts by turning their takeup reels. This tightening lessens both the chance that injuries will be suffered and the severity of those that do occur.

Mercedes quite properly regards air bags as only supplementary restraints and advises drivers not to neglect their seatbelts. Still, the company recognizes that many drivers will undoubtedly depend solely on their air bags. To provide extra protection for such drivers, Mercedes designers have installed a cushioned knee bolster under the left half of the 190's dash. In an accident, the bolster helps to restrain the driver's lower body and keeps him from submarining under the air bag.

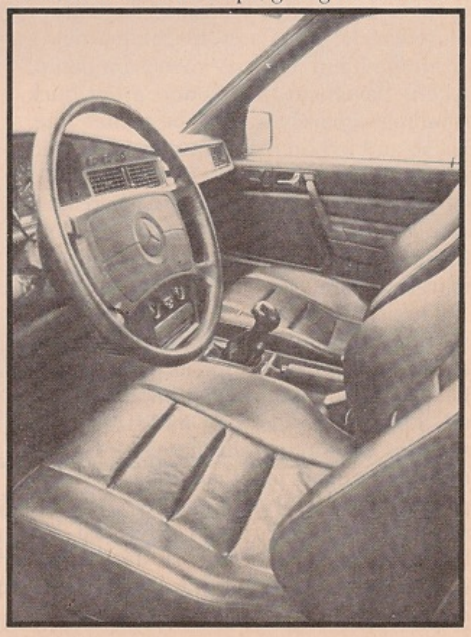
According to Mercedes, there have been no malfunctions in any of its air-bag systems thus far—an enviable reliability record. However, if its air bags encourage drivers to neglect their seatbelts, then the overall worth of the system becomes dubious. It will therefore take a few years and a few hundred thousand air-bag-equipped cars in the hands of the public before we can say with any confidence whether Mercedes' bold answer to the air-bag debate is truly the right one. —*Csaba Csere*

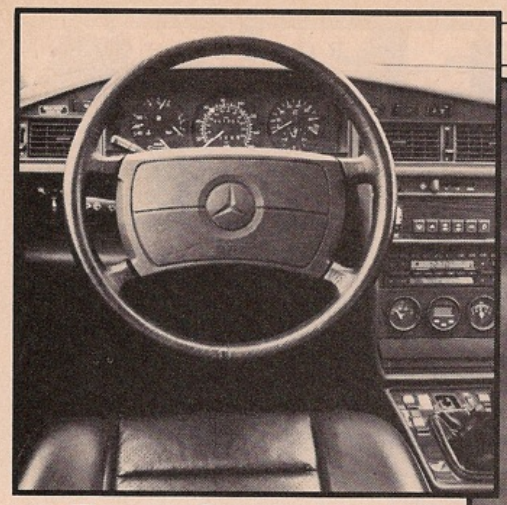
you're bundled up in a Nanook-of-the-North parka instead of cooling off in Buford-of-Bermuda shorts, a second setting is easily saved.

Deeply sculptured leather sport seats promise support for active users. Even the back seat provides deep bolsters. Unfortunately, M-B offers no cloth in its class-conscious performers; in the hard-driving mode, some of our svelte staff members found themselves sliding from bolster to bolster and wishing for suede or cloth inserts for better adhesion.

An upholstered knee bar under the dash forms part of the 190's Supplemental Restraint System (see Technical Highlights). You may not notice the bar until you heel and toe, whereupon you brush your shin. The pedals themselves are fine, making downshifting a second-nature breeze. Upshifting is less smooth, because the clutch action is lumpy and there's a clunk at the end of the engagement very much reminiscent of the little jolt that BMWs have emitted for years. Although M-B says this five-speed is its own, European 2.3–16s originally bore Getrag units, and this one has the same vague feel. It is also saddled with the old "GT" shift pattern, with first gear to the left of the main H. Though we prefer the more conventional pattern, this transmission is certainly light to the touch, thanks to the shifter's spring loading. Still, we wonder whether the automatic might be a better intermediary between the power and the pavement.

The rest of the interior is sophisticated and tightly packed with good ergonomics. If the console's wood is an anachronism, at least it wears a rich shine. An electronic AM/FM-stereo/cassette system puts out decent sound, but bakes tapes to medium well. The head unit ties into an all-knowing anti-theft system: if the system is armed when somebody gives your stereo a covetous tug, the unit realizes something is fishy and scrambles its chips, going to lunch for-





ever. The array of occasionally confusing climate-control symbols takes a little learning, but the end result is set-and-forget comfort. Low on the console, a digital stopwatch ticks off journeys, and the faces of small volt and oil-temp gauges attempt to echo the wonderful legibility of the big, stark, white-on-black analog gauges housed in the dashboard. It's all tight, and it shows few faults.

Comes the rain, though, and another sort of fault opens up with the sky: the P6s have trouble coping with copious moisture. Standing water aquaplanes them right into a thrill ride you wouldn't give a nickel for.

ABS can't save you from aquaplaning, but what it does for braking is sensational. In effect, it creates perfect front-to-rear brake balance. In the dry, the pedal pulses with the usual ABS thumps when it's hammered down at 70 mph, and the car stops ruthlessly short in 171 feet.

In the tumbled hills of Ohio, the ABS saved our hides twice. A warning sign had been washed out by days of downpours; we popped over a rain-swept crest, expecting a straight, only to find a sharply plunging hook. With no more than a quick pounce into the ABS and a couple of quick swipes with the wheel, the 190 squeegeed onto the right side of the road like a giant plumber's helper. Later, we came winging around a blind, fallaway corner on damp, patchy pavement, and found a big buck standing squarely across the center line. He scrambled on the slippery asphalt and vaulted the guardrail. By then, we'd stopped a good 40 feet short of where he'd stood, coming to a complete halt only because curiosity demanded to know the margin of safety.

This is some little $35,000 hot rod. Even so, faced with ever more astute challengers, Mercedes has covered its performance bets by building its own competition for the 2.3–16. The slick new mid-sized 300E sedan is a tempting alternative. It costs a thousand dollars less than this wee scrapper, and it could well be the better car for most buyers. With relatively few 2.3–16s being imported by the factory, the natural-selection process to follow will be fascinating indeed. *—Larry Griffin*

COUNTERPOINT

• When little cars get this expensive, I resort to creative accounting procedures. In terms of raw performance, the 190 2.3–16 knocks off the turbo troops (Audi, Saab, and Volvo) by a whisker, and it surpasses comparable cars by BMW, Ford, GM, and the Japanese by a broad margin; I figure that's worth a basic-hardware bid of $25,000. Then there's the owner-satisfaction factor, which the J.D. Power survey says is top-notch for this brand; let's add another $2000. Mercedes also leads the industry in resale values, and I'll bet this could make a $5000 difference at trade-in time. The bank-vault sounds I get every time I slam a door home are worth another grand. Turning to the debit side of the ledger, I'd have to subtract $500 to account for this car's two big negatives: the air bag and the wrong five-speed shift pattern. Add up the figures and you'll conclude, as I did, that the sixteen-valve 190 is overpriced by a couple thou. But don't close the books just yet. The fact is that two things in life can't be accounted for: taste and the recognition value of a silver star on your hood. *—Don Sherman*

We all know how to describe a Mercedes-Benz. If we compared lists of adjectives, they'd all contain words like "solid," "reliable," "comfortable," and "capable." But what about "fun"? How about a Mercedes that sends your feet wriggling for the heel-and-toe pedals, and your ear bending toward the engine compartment?

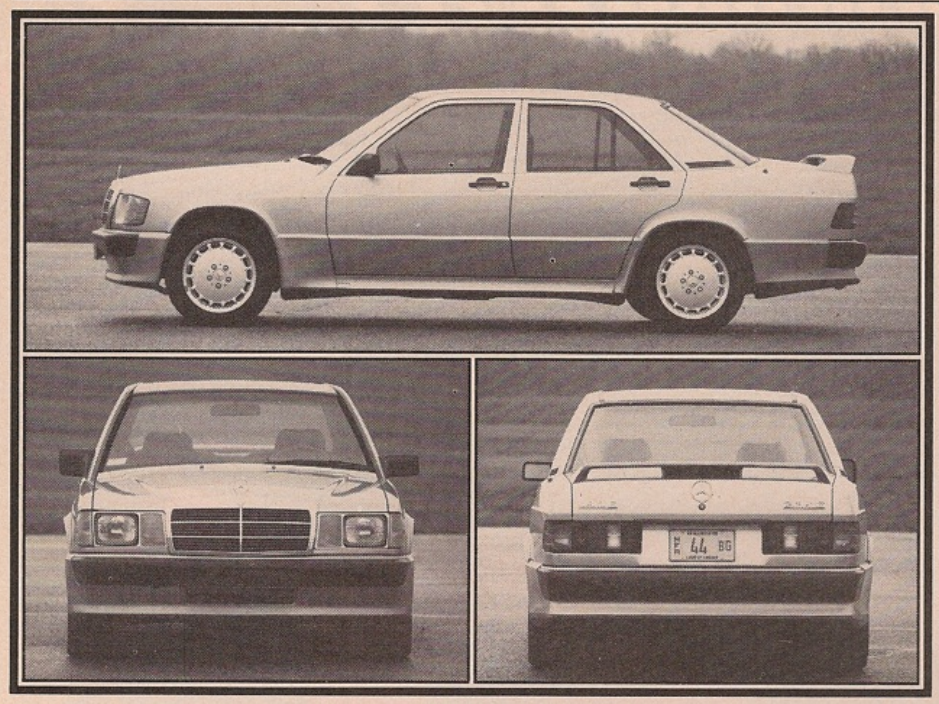
Well, you'd better find your Ascari driving gloves, because the 190 2.3–16 is just such a car. The new sixteen-valve engine has transformed the staid 190 sedan into a real back-roads burner. Mash on the throttle and you conjure up a melodious, mechanical whine that actually has the nerve to intrude on the refined Mercedes cabin and say, "Let's go out and play!" The five-speed manual gearbox adds to the fun, although smooth shifts require some practice.

Buyers seeking a bank-vault-quiet Mercedes may object to this car's brio, but enthusiasts will be more interested in its fun quotient and will snap up the supply. And for good reason: the 190's list of favorable adjectives has just gotten longer. *—Arthur St. Antoine*

Daimler-Benz knows how to build cars, all right, but it knows even more about building price stickers. It loads them up with enough zeros to give you a nosebleed. For years, Mercedes' U.S. models have been the premium-priced cars of the premium-priced field—and by quite a margin. List prices for comparably equipped German-market models have often been shockingly lower.

The 2.3–16 is plenty dear, too. Yet this time I find myself blissfully ignoring the stratospheric bottom line. The notion of Mercedes' anvil-like solidity married to the soul of a sixteen-valve rat racer is too much to resist. Imagine a woman who is rooted in the solid values of hearth and home, but has a wild streak to keep things interesting. (Yes, dear, I'm talking about *you*.)

The 2.3–16 has plenty of chinks in its armor, from a rubbery clutch engagement to excessive thumping over life's tar strips. And the designers couldn't have picked a more awkward spot for the center-mounted taillamp. But what can I say? Once your heart goes out the window, what do a few extra zeros on the price sticker mean? *—Rich Ceppos*



Vehicle type: front-engine, rear-wheel-drive, 4-passenger, 4-door sedan

Price as tested: $34,800

Options on test car: none

Standard accessories: power steering, windows, seats, locks, and sunroof, A/C, cruise control, rear defroster

Sound system: Becker Grand Prix AM/FM-stereo radio/cassette, 4 speakers

ENGINE

Type	4-in-line, iron block and aluminum head
Bore x stroke	3.76 x 3.16 in, 95.5 x 80.3mm
Displacement	140 cu in, 2299cc
Compression ratio	9.7:1
Fuel system	Bosch KE-Jetronic fuel injection
Emissions controls	3-way catalytic converter, feedback fuel-air-ratio control
Valve gear	chain-driven double overhead cams, 4 valves per cylinder, hydraulic lifters
Power (SAE net)	167 bhp @ 5800 rpm
Torque (SAE net)	162 lb-ft @ 4750 rpm
Redline	6500 rpm

DRIVETRAIN

Transmission	5-speed
Final-drive ratio	3.27:1, limited slip

Gear	Ratio	Mph/1000 rpm	Max. test speed
I	4.08	5.1	33 mph (6500 rpm)
II	2.52	8.3	54 mph (6500 rpm)
III	1.77	11.8	77 mph (6500 rpm)
IV	1.26	16.6	108 mph (6500 rpm)
V	1.00	20.9	134 mph (6400 rpm)

DIMENSIONS AND CAPACITIES

Wheelbase	104.9 in
Track, F/R	56.9/56.3 in
Length	174.4 in
Width	67.2 in
Height	53.6 in
Frontal area	20.9 sq ft
Ground clearance	4.8 in
Curb weight	2997 lb
Weight distribution, F/R	54.4/45.6%
Fuel capacity	18.7 gal
Oil capacity	5.3 qt
Water capacity	8.5 qt

CHASSIS/BODY

Type	unit construction with 1 rubber-isolated crossmember
Body material	welded steel stampings

INTERIOR

SAE volume, front seat	48 cu ft
rear seat	34 cu ft
trunk space	11 cu ft
Front seats	bucket
Seat adjustments	fore and aft, seatback angle, front height, rear height
General comfort	poor fair good **excellent**
Fore-and-aft support	poor fair good **excellent**
Lateral support	poor fair **good** excellent

SUSPENSION

F:	ind, strut located by a control arm, coil springs, anti-roll bar
R:	ind, 2 lateral links and 3 diagonal trailing links per side, coil springs, anti-roll bar

STEERING

Type	recirculating ball, power-assisted
Turns lock-to-lock	3.2
Turning circle curb-to-curb	34.8 ft

BRAKES

F:	11.2 x 0.9-in vented disc
R:	10.2 x 0.4-in disc
Power assist	vacuum with anti-lock control

WHEELS AND TIRES

Wheel size	7.0 x 15 in
Wheel type	cast aluminum
Tires	Pirelli P6, 205/55VR-15
Test inflation pressures, F/R	32/35 psi

CAR AND DRIVER TEST RESULTS

ACCELERATION

	Seconds
Zero to 30 mph	2.3
40 mph	3.7
50 mph	5.3
60 mph	7.3
70 mph	9.6
80 mph	12.8
90 mph	16.6
100 mph	21.8
Standing ¼-mile	15.8 sec @ 88 mph
Top speed	134 mph

BRAKING

70–0 mph @ impending lockup	171 ft
Modulation	poor fair good **excellent**
Fade	**none** moderate heavy

HANDLING

Roadholding, 300-ft-dia skidpad	0.80 g
Understeer	minimal **moderate** excessive

FUEL ECONOMY

EPA city driving	**18 mpg**
EPA highway driving	26 mpg
C/D observed fuel economy	**18 mpg**