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**NEW SUPRA
ZINGS THE SPORTS-CAR
ESTABLISHMENT!**



Fast New Four-Doors: BMW's 282-hp 540i V-8
Alfa Romeo's revamped 24-valve, 140-mph 164LS
Speedy big Caddy—270-hp de Ville Concours!





BMW 540i

In which a good eight replaces a great six in the old Five.

BY JOHN PHILLIPS

Back in 1988, when BMW yanked the trench coat off its current 5-series line, there was but one lonely U.S.-bound face in the family: the 535i. Since then, the Five's family tree has forked and crept and burgeoned like some sort of Borneo strangler fern. There are BMW public-affairs employees who now cannot name all of this family's siblings. Here's the 1994 portrait:

- 525i sedan, five-speed manual: \$38,476
- 525i sedan, four-speed auto: \$39,411
- 525i Touring (a wagon to you and me), four-speed auto: \$41,225
- 530i sedan (the cheapest BMW V-8),

five-speed manual: \$42,546

- 530i sedan, five-speed auto: \$43,756
- 530i Touring, five-speed auto: \$45,846
- 540i sedan, five-speed auto: \$50,246
- M5 sedan, five-speed manual: \$66,630.

If you are paying attention, you will notice that the car that actually begat the series, the 208-hp 535i, is wholly kaput. Gone. It has been replaced by the 540i, which is powered not by the familiar in-line six but by BMW's new DOHC 32-valve V-8. This alloy engine weighs only 470 pounds but still boosts the 540i's curb weight beyond that of the old 535i. The added heft, of course, is offset by the

V-8's muscle, which surpasses its six-cylinder forbear by 74 horsepower and 70 pound-feet of torque.

You would think that all of this would make the 540i a vehicular bullet.

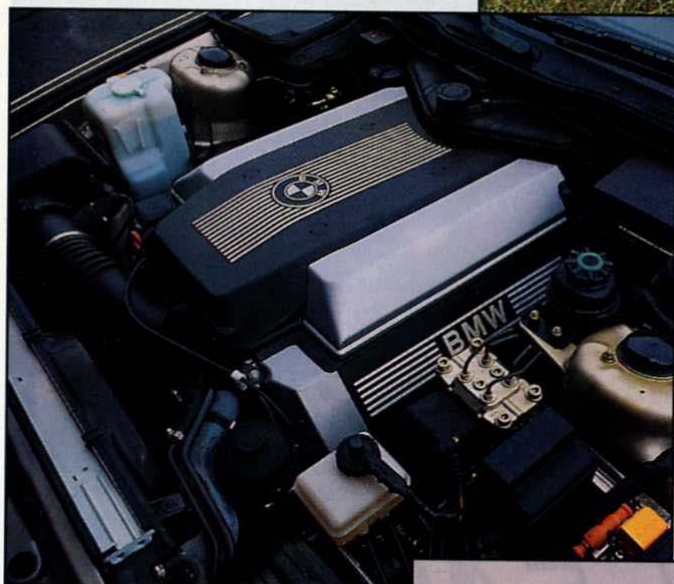
That is not the case, although the 540i does accelerate to 60 mph in a rapid 6.9 seconds. However, that makes it only one-tenth of a second quicker to 60 than the old manual-transmission 535i and only a tenth quicker through the quarter-mile. What's more, the 540i delivers virtually identical performances in top speed, in braking, and on the skidpad. Yes, that's an apples-and-oranges comparison, but the 540i is

the Verdict:

Highs: V-8 snarl, five-speed automatic, near-perfect ergonomics.

Lows: Only marginally quicker than the car it replaces.

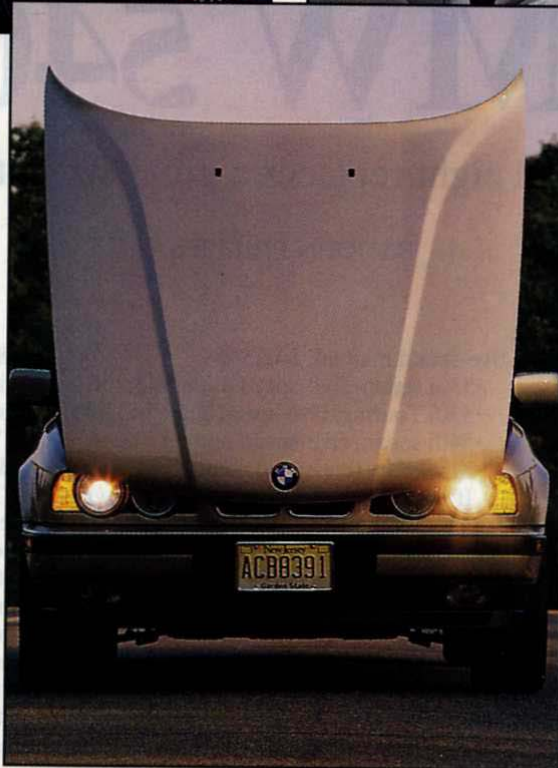
The Verdict: As good as a Benz 400E and a lot cheaper.



offered only with an automatic, and even the new five-speed automatic can't harness power as well as a good manual.

Don't get us wrong. This is a lovable, velvety, fast-revving engine with no obvious peaks or valleys in its power delivery beyond 2500 rpm. And the 540i's test-track stats are close to those of the much-admired V-8-powered Mercedes-Benz 400E—arguably its closest competitor and a car whose cockpit size and curb weight are dead ringers for the 540i's. Both, as it happens, will cheerfully carry you and four thrillseekers to within a gulp of 150 mph while making the same amount of noise as a funeral director on Easter Sunday. Better yet, the BMW inflicts \$9000 less damage to your wallet than the 400E.

On the other hand, the 5-series sedans are also five years old and looking a trifle angular and frumpy,



helped not a lot by the quad layout of the halogen Hellas.

Mechanically, however, there remains much here that feels 1994-modern. The car's practical size and intelligent packaging, for example. Its suppression of wind and road noise, for another. And the platform's structural rigidity, which is simply beyond reproach. Our 540i had 4500 difficult miles on its odometer, yet even as it traversed glorious Hogback Road—whose asphalt evidently has been lifted intact from pockmarked Sarajevo—there emanated from the cockpit no squeaks, no rattles, no groans.

Some owners may ask, in fact, why the alluring snarl of the 540i's V-8 isn't more assertive. Hydraulic lifters are one reason. And when you lift the hood, you espy another: the V-8 is wrapped in a 20-by-30-inch plastic coffin that buries even the cam covers. This makes the thing

look as spellbinding as an industrial furnace.

Plastic shroud notwithstanding, the 540i shares its 4.0-liter V-8 with the larger, 221-pound-heavier 740i. Curiously, the grosser 740i is a tenth quicker, both to 60 mph and through the quarter-mile. Because both cars employ identical final-drive ratios, this anomaly can perhaps be traced to variances in assembly tolerances. Which does not strike us as very Teutonic.

The ZF five-speed automatic is so wonderful that we cannot honestly say we miss BMW's buttery row-your-own five-speed. Despite the ZF's low (numerically high) 3.55:1 first gear, the chunky rear P600s will do little more than chirp from a standing start. Nevertheless, the transmission control module talks endlessly to the V-8, which responds by retarding timing automatically during shifts. The upshot is one of the smoothest automatics we have ever encountered, even under the whip of full-throttle redline upshifts. This is especially noteworthy when you consider that, from rest and under a light throttle, you can coax the ZF to cycle through first, second, third, and into fourth by the time the car has attained 40 mph. That's a lot of action in so brief a period, yet all this shiftiness underfoot goes wholly unnoticed.



In addition to BMW's now-familiar Economy and Sport programs, the ZF has a "Winter" mode, in which the transmission initially serves up third to avoid even the rumor of wheelspin. No matter which mode you select, you'll occasionally shift the thing manually, if only because grab-

bing the seamless walnut shift lever is like running your fingers over a Victoria's Secret silk teddy. If you still fret about wheelspin, opt for the \$1660 inclement-weather package—traction control and heated seats.

With its standard anti-lock brakes, the 540i stops from 70 mph in 178 feet and will do so repeatedly with no fade. This is a mere twelve inches farther than the distance required by a Ferrari 348tb. On on-ramps, the 540i's handling remains largely neutral, and the car can still be steered with amusing, if somewhat heavy, stabs from your right foot. Similarly, a quick stab-and-lift with the transmission in Sport mode induces aggressive downshifts, reminiscent of Porsche's complex Tiptronic.

As in every current BMW, the 540i's ergonomics are nearly faultless, with standout performances from the seats, the switchgear, and the no-nonsense gauges. With a better grade of leather facings this year, the 540i's cockpit is, by German standards, finally approaching sinful—at least if you disregard the Honda-style plastic sun visors. (We eventually came to appreciate them after a visit to the New Baltimore Dairy Queen, where some latent hot-fudge prints required immediate attention.) Our sniveling is thus confined to (1) the slightly overlarge steering wheel, which is a little too high and not adjustable for rake, and (2) the stereo's spotty FM reception and tinny speakers.

None of which dissuades us from recommending the 540i. It is a fast, firmly planted, meticulously assembled sedan that is fun to drive. What's more, the new 540i costs just \$2915 more than the six-cylinder car it replaces. Still, we do wish the V-8 idled as smoothly as the old in-line six, didn't still incur a \$1000 guzzler tax, and delivered more visceral acceleration.

What you undeniably get for your extra dollars are bragging rights to a multivalve V-8. For the Munich marketing managers, at least, that may be the whole point. BMW's closest luxo neighbors—Audi, Mercedes, Infiniti, Lexus, and Cadillac—have for years made hay of their high-output V-8s.

But if you still ache for the true delinquent in the 5-series family—the most exciting BMW sibling currently sold in the U.S.—then step up to the 310-hp in-line six in the sublime M5. It is within the \$66,630 M5 that Bayerische Motoren Werke's hot-rod soul still resides. And it is ironic that the line's dearest, fastest offering is now also the lone family member to carry on the venerated 3.5-liter tradition.

COUNTERPOINT

You'd never guess from the sound and feel emanating from this world-class powerplant that BMW last built a V-8 in 1965. The same praises heaped on the super-tech eights from Ford and Cadillac apply here: seamless power, a waterfall of torque, and a burbling engine note that speaks volumes more than any ad campaign. One tiny gripe: The five-speed auto keeps these powerful lungs inflated by downshifting through every gear. Kind of like a stopover at O'Hare—you don't want to be there, but for some unexplained reason you have to. —Martin Padgett Jr.

After sampling BMW's splendid 4.0-liter V-8 in the 740i, I expected great things of the 5-series car with the same engine. Great things there were, but not exactly what I'd foreseen. I thought the smaller body would lend the kind of sharp responses that made hot Fives of yore such persuasive envoys for the Bavarian company, and I was wrong.

Although the 540i accelerates, shifts, and steers with the aplomb appropriate to a BMW, the moves are all overlaid with a veneer of refinement so thick it might have come off a Lexus LS400. In short, the car is now too mature for me. —Barry Winfield

As an engineer, I'm fascinated by continuously variable transmissions (CVTs). CVTs keep engines operating at peak load for optimal power and efficiency by providing an infinite number of gear ratios. But torque limitations restrict today's CVTs to only the tiniest of cars. ZF's marvelous new five-speed automatic has convinced me that we can live with a finite number of ratios. With smooth shifts, swift kick-downs, and gears spaced closer than in a 535i manual box, acceleration occurs almost as seamlessly as with a CVT. Of course, now there are a few six-speed autos in the works...

—Frank Markus



Vehicle type: front-engine, rear-wheel-drive, 5-passenger, 4-door sedan

Price as tested: \$50,246

Price and option breakdown: base BMW 540i (includes \$1841 luxury tax, \$1000 gas-guzzler tax, and \$405 freight), \$50,246

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

Sound system: BMW AM/FM-stereo radio/cassette, 8 speakers

ENGINE

Type.....V-8, aluminum block and heads
 Bore x stroke.....3.50 x 3.15 in, 89.0 x 80.0mm
 Displacement.....243 cu in, 3982cc
 Compression ratio.....10.0:1
 Engine-control system.....Bosch Motronic HFM with port 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).....282 bhp @ 5800 rpm
 Torque (SAE net).....295 lb-ft @ 4500 rpm
 Redline.....6300 rpm

DRIVETRAIN

Transmission.....5-speed automatic with lockup torque converter
 Final-drive ratio.....2.93:1

Gear	Ratio	Mph/1000 rpm	Max. test speed
I	3.55	7.2	43 mph (6000 rpm)
II	2.24	11.4	72 mph (6300 rpm)
III	1.54	16.6	104 mph (6300 rpm)
IV	1.00	25.5	147 mph (5750 rpm)
V	0.79	32.3	149 mph (4600 rpm)

DIMENSIONS AND CAPACITIES

Wheelbase.....108.7 in
 Track, F/R.....57.7/58.9 in
 Length.....185.8 in
 Width.....68.9 in
 Height.....55.6 in

Frontal area.....22.3 sq ft
 Ground clearance.....5.0 in
 Curb weight.....3780 lb
 Weight distribution, F/R.....51.7/48.3%
 Fuel capacity.....21.4 gal
 Oil capacity.....8.0 qt
 Water capacity.....13.0 qt

CHASSIS/BODY

Type.....unit construction with 2 crossmembers
 Body material.....welded steel stampings

INTERIOR

SAE volume, front seat.....50 cu ft
 rear seat.....41 cu ft
 luggage space.....13 cu ft
 Front seats.....bucket
 Seat adjustments.....fore and aft, seatback angle, front height, rear height
 Restraint systems, front.....manual 3-point belts, driver airbag
 rear.....manual 3-point belts, center lap belt
 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 1 lateral link and 1 leading link, coil springs, anti-roll bar
 R:.....ind, semi-trailing arms coil springs, anti-roll bar

STEERING

Type.....recirculating ball, power-assisted
 Turns lock-to-lock.....3.5
 Turning circle curb-to-curb.....36.1 ft

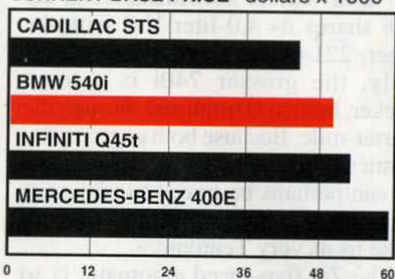
BRAKES

F:.....11.9 x 1.1-in vented disc
 R:.....11.8 x 0.8-in vented disc
 Power assist.....vacuum with anti-lock control

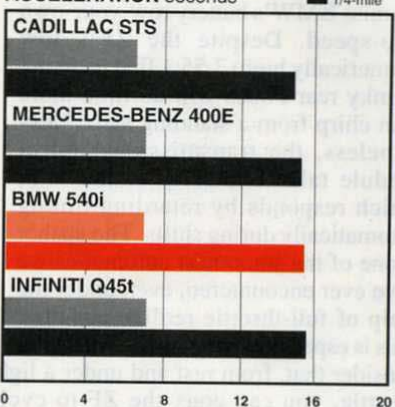
WHEELS AND TIRES

Wheel size.....7.0 x 15 in
 Wheel type.....cast aluminum
 Tires.....Pirelli P600, 225/60ZR-15
 Test inflation pressures, F/R.....37/45 psi

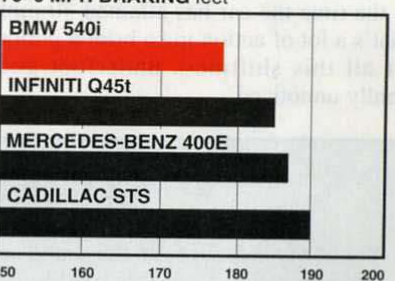
CURRENT BASE PRICE* dollars x 1000



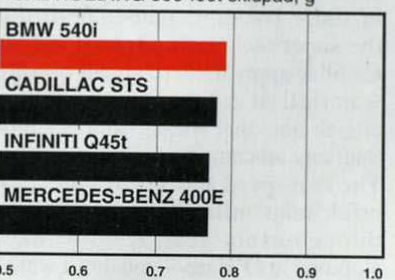
ACCELERATION seconds



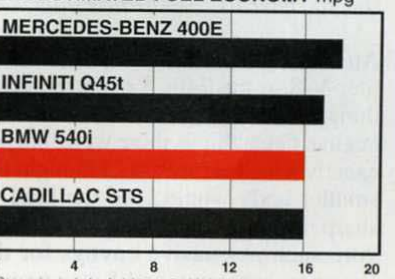
70-0 MPH BRAKING feet



ROADHOLDING 300-foot skidpad, g



EPA ESTIMATED FUEL ECONOMY mpg



*Base price includes freight, applicable luxury and gas-guzzler taxes, and any performance options.

CAR AND DRIVER TEST RESULTS

ACCELERATION

Test	Seconds
Zero to 30 mph	2.7
40 mph	3.8
50 mph	5.3
60 mph	6.9
70 mph	9.0
80 mph	11.5
90 mph	14.3
100 mph	18.2
110 mph	23.1
120 mph	28.8
130 mph	35.7
140 mph	49.1
Street start, 5-60 mph	7.4
Top-gear passing time, 30-50 mph	3.8
50-70 mph	4.4
Standing 1/4-mile	15.4 sec @ 93 mph
Top speed (governor limited)	149 mph

BRAKING

70-0 mph @ impending lockup.....178 ft
 Fade.....none moderate heavy

HANDLING

Roadholding, 300-ft-dia skidpad.....0.79 g
 Understeer.....minimal moderate excessive

FUEL ECONOMY

EPA city driving.....16 mpg
 EPA highway driving.....23 mpg
 C/D observed fuel economy.....16 mpg

INTERIOR SOUND LEVEL

Idle.....52 dBA
 Full-throttle acceleration.....75 dBA
 70-mph cruising.....68 dBA
 70-mph coasting.....67 dBA