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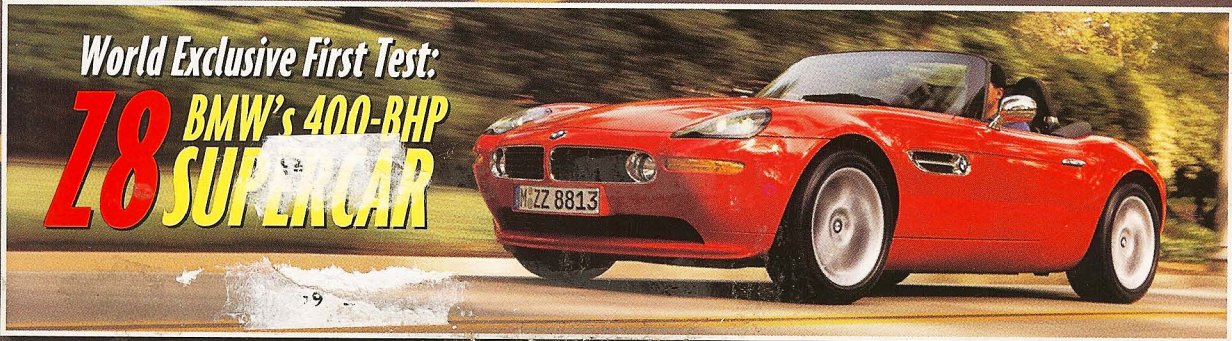
ROAD & TRACK

<http://www.roadandtrack.com> AOL keyword: road

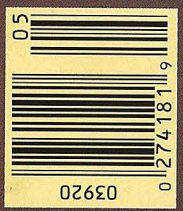
Wild Things

**HOT SPORTS CARS
FROM JAPAN**

MUGEN-HONDA SS2200



World Exclusive First Test:
Z8 BMW's 400-BHP
SUPERCAR

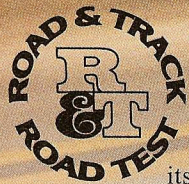


May 2000
\$3.95
Canada \$4.95
UK £2.50

BMW Z8

Rekindling our love
for automobiles

BY PATRICK HONG
PHOTOS BY JEFF ALLEN



“RETRO.” THAT’S THE buzzword in the world of automotive design right now. And when BMW set out to design its flagship Z8 high-performance sports car, it followed the same trend. Christopher Bangle, BMW’s chief designer, spoke passionately about Munich’s classic 507 roadster of the 1950s serving as inspiration. The wide double-kidney grille up front, the gills on the sides, the traditional sports-car proportions of a long sloping hood with the cockpit set back; this car is meant to convey a sense of heritage and the romance of yesteryear.

But with all due respect to Mr. Bangle, and Henrik Fisker, the person who

penned the Z8, I am more taken by the original rear and interior styling than the design cues reminiscent of the 507. By day, the sculpted body of the shapely Z8 is best viewed and appreciated from the rear three-quarter, at a slightly elevated point of view. Every surface on the Z8 flows continuously without any sense of abruptness. Take the cut line for the door as an example. It starts at the bottom of the front wheel well, separates into two before sweeping upward, cresting over the car’s shoulder, then tucking back into the cockpit. And if you continue to trace the broad downward-sloping rear fenders, you’ll end up at an elegant narrow band of wraparound taillights. At the rear, the rounded rectangular cutout for the license plate and the two

polished-steel tailpipes melt into smooth surfaces, giving the Z8 a perfect blend of beauty and power.

Open the door and nestle into the luxurious, fine-grain Napa leather-upholstered cockpit. The first thing that grabs your attention is the aluminum multispoke steering wheel and the instrument cluster that’s wrapped in a curvaceous glossy-painted surface positioned at the center of the dash, canted toward the driver. Only the most vital information on the car is presented: fuel level, speed, engine rpm (with a white-faced clock inset at the bottom) and coolant temperature.

Look farther down and an aluminum trim piece outlines the vents with four simple knobs directing the airflow.



Beneath is a cover hiding the Multi-Information Radio (MIR) that incorporates a GPS navigation system, a radio with a CD changer placed behind the seats, and a hands-free mobile phone system. On the door, more aluminum trim highlights the simple window and mirror controls. In fact, there are so many interesting details and bright surfaces inside the car that you want to touch them all.

Insert the key, press the starter button, and the 400-bhp engine immediately comes to life, idling smoothly with only a murmur filtering through the bonnet. Push the rocker switch on the center console, and the convertible top opens automatically (human assistance is needed when putting the top

back up) and folds itself nicely behind the cockpit. This BMW is now in proper form for some grand touring.

The Z8 has power-assisted rack-and-pinion steering directing a MacPherson-strut suspension with split lower A-arms and an anti-roll bar. With this setup and the 245/45R-18 tires up front, the Z8 turns into corners with precision and agility. And with the help of multilink suspension and an anti-roll bar controlling the super-wide 275/40R-18 rear tires, the BMW stays planted to the asphalt with absolute stability and little roll. In fact, when challenging some of the curvy roads through the mountains in Ventura County, California, the smooth way in which the car executes every driver

command inspires so much confidence that it becomes addictive. From the positive pedal feel, to the nicely weighted steering, to the short-throw gearshift, to the way the BMW transitions in corners, it feels like you're driving and riding in a sporting luxury sedan, but at a pace only a high-performance sports car can achieve.

The BMW roadster's easy handling showed even higher capabilities at the track. It didn't take long for the Z8 to post its best slalom result of 62.3 mph, with mild understeer, and generate 0.92g on the skidpad showing moderate understeer. And when the time came to demonstrate stopping power, the 13.5-in. front and 12.9-in. rear discs brakes hauled the roadster to a

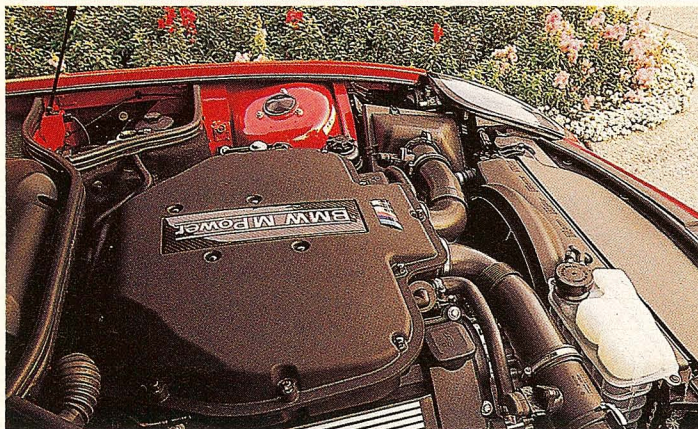
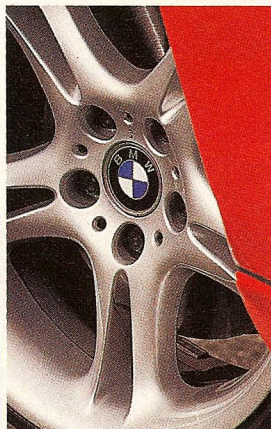
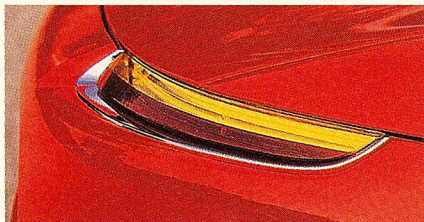
standstill from 60 mph in 122 ft., and from 80 mph in only 215 ft.

On the road, the temptation to unleash the Z8's 369 lb.-ft. of torque all at once is difficult to resist, especially with 85 percent of it on tap at 1500 rpm. Turn off the standard Dynamic Stability Control (DSC III) system, hold the engine at 2500 rpm and drop the clutch. The rear tires quickly snap to attention and spin to find any bit of traction left on the asphalt.

With some restraint on the throttle and a small steering correction, the BMW can gather itself up and sprint down the drag strip. The short-throw 6-speed gearbox is smooth and precise. The smoothness is enhanced by a two-mass flywheel that damps torsional vibrations from the engine and the drivetrain. Our best zero-to-60-mph sprint took a scant 4.5 seconds, the quarter-mile lights tripped at 13.0 sec. at 106.5 mph. This puts the BMW a tick behind the Ferrari 360 Modena but a bit quicker than, say, a Lamborghini Diablo.

The Z8's exceptional powerplant is the result of BMW Motorsport division's hard work on transforming the stock 540i sport's M62 unit into a sophisticated S62 engine (also seen in the M5) that delivers tractable horsepower and torque throughout the rev range. The new 4941-cc V-8 features an infinitely variable, map-controlled

■ While the Z8's front-end design cues hark back to the classic BMW 507, the rear takes on a more modern approach with flowing surfaces. Underneath the hood, the 400-hp powerplant propels the BMW into the elite high-performance sports-car category.



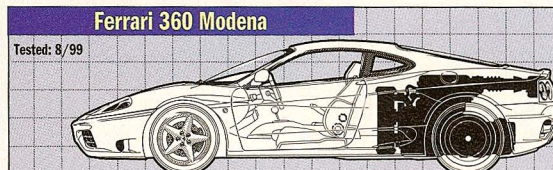
double VANOS valve timing system combined with electronically controlled, individual drive-by-wire throttle butterflies that can respond to driver input in as little as 120 milliseconds. And to ensure adequate oil supply to the engine under extreme longitudinal or lateral maneuvers, the BMW engineers devised a dry-sump system consisting of strategically placed pressure and extraction pumps ready to deliver the oil to where it needs to be. Other

technicalities include a heavy-duty double-roller timing chain and hollow camshafts, plus large intake ports and an oversized cooling system.

While the front/mid-engined Z8 appears retro in styling, everything that makes up the car is of leading-edge materials seen on only a few of the world's best automobiles. The BMW is constructed with an all-aluminum space frame and body using extrusions and stampings (no castings here), and is held



By Comparison



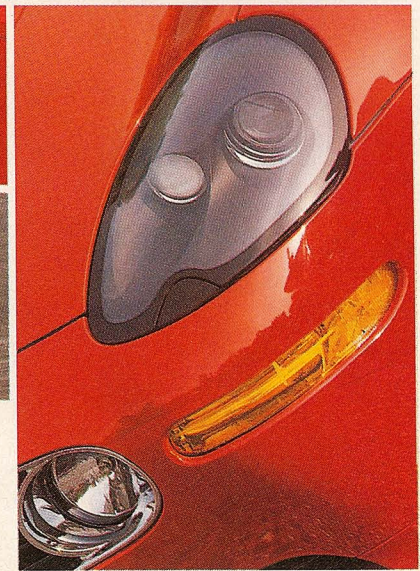
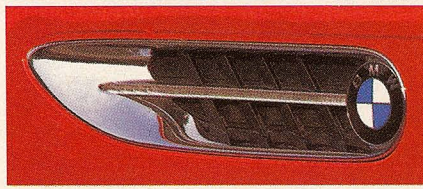
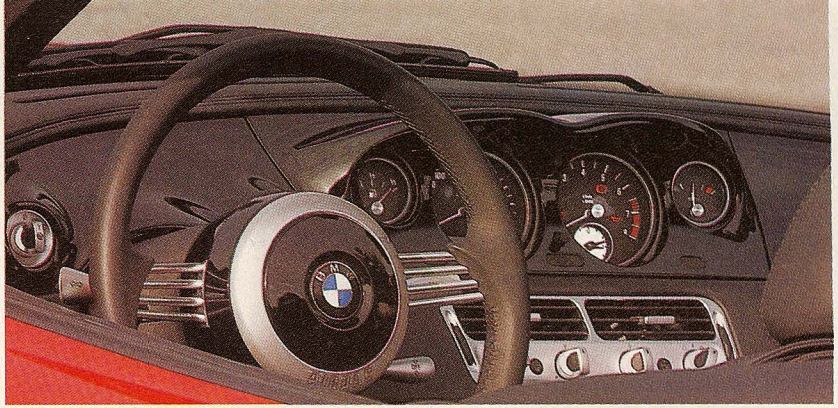
■ Looking only at the engine specifications, the BMW appears to be a higher-performing sports car than the Ferrari. However, the luxuriously equipped BMW weighs nearly 600 lb. more than the Ferrari, making it a little slower and a bit less agile. But by no means a slouch. In fact, the Z8 is a grand touring car with sports-car performance, whereas the Modena is a pure racer at heart.


	BMW Z8	Ferrari 360 Modena
Current list price	\$128,000	\$148,000
Engine	dohc 4.9-liter V-8	dohc 3.6-liter V-8
Horsepower	400 bhp @ 6600 rpm	395 bhp @ 8500 rpm
Torque	369 lb.-ft. @ 3800 rpm	275 lb.-ft. @ est 4750 rpm
Transmission	6-speed manual	6-speed manual
0-60 mph	4.5 sec	4.3 sec
Braking, 60-0 mph	122 ft	110 ft
Lateral accel (200-ft skidpad)	0.92g	na
Fuel mileage	est 14.0 mpg	est 16.0 mpg
Length	173.2 in.	176.3 in.
Width	72.0 in.	75.7 in.
Height	51.9 in.	47.8 in.
Wheelbase	98.6 in.	102.4 in.
Track, f/r	61.1 in./61.7 in.	65.7 in./63.7 in.
Curb weight	est 3600 lb	est 3065 lb

together with more than 1000 rivets and 187 ft. of MIG (metal-inert-gas) welded seams. By using a Y-shape design for the center tunnel starting from the front of the car and coming together just aft of the cockpit, the Z8's aluminum space frame can absorb impact forces much better than a straight-tunnel design. The Y solution also provides excellent chassis stiffness, with its natural frequency registering 23 Hz for torsional and 21 Hz for transverse loads.

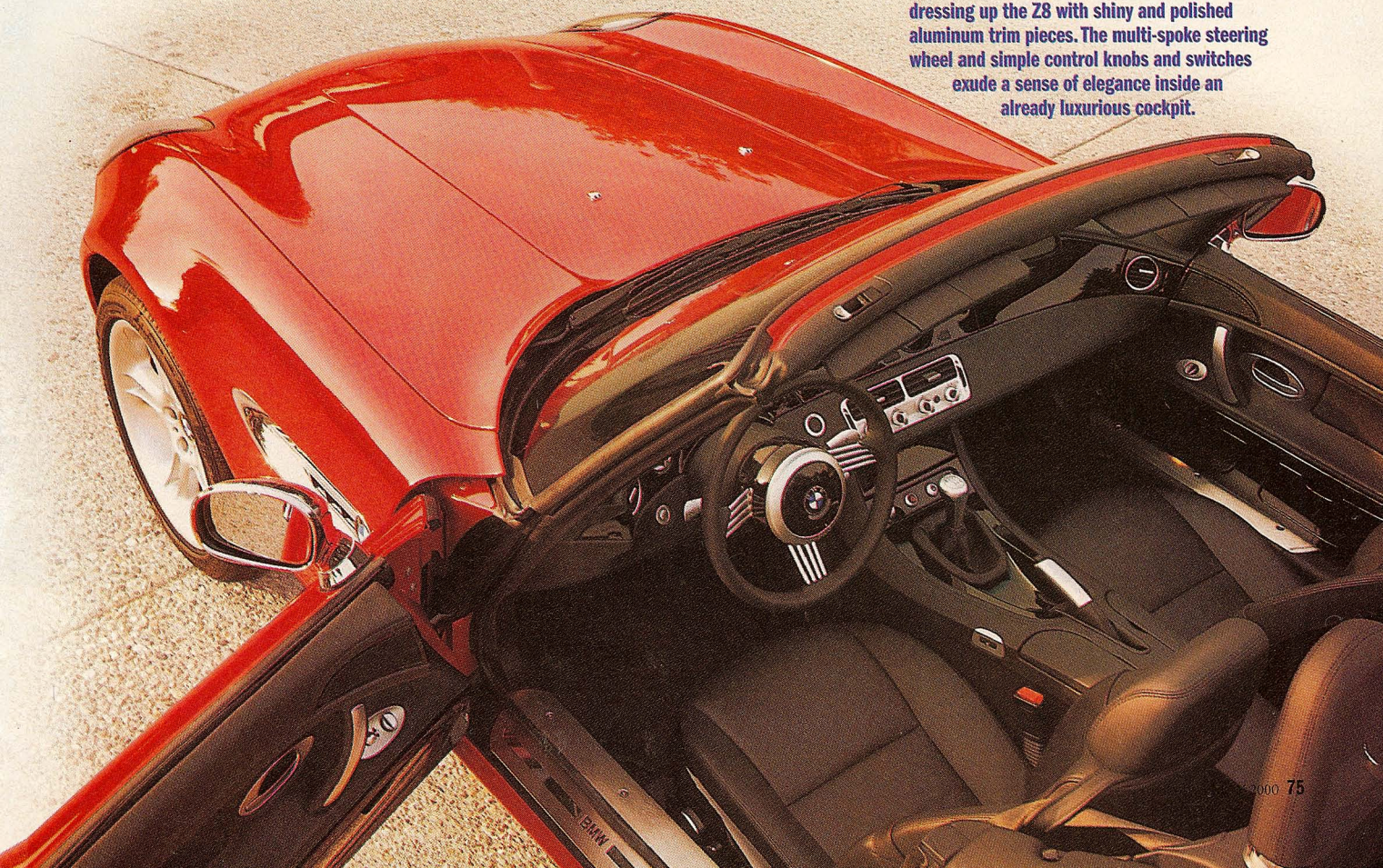
First-year production for the Z8 is planned to be 1800 cars with 400 arriving stateside. And according to BMW of North America, it has already taken customer orders for every one of them. At a list price of \$128,000, the Z8 roadster is built almost entirely by hand, and it takes ten times as long to complete as the 3 Series sedan. Besides choosing the color combination of your car, everything else pretty much comes standard on the Z8, including the hard-top and free regularly scheduled maintenance services to 50,000 miles.

At the end of the day when the sun finally dips below the horizon, the Z8 projects another image that is perhaps better than the car seen by day. While the Z8's cool-blue, brilliant modern xenon headlights and bright neon directional markers and taillights exemplify modern technology, it is the



warm orange glow illuminating the few simple gauges inside the cockpit that brings a sense of nostalgia. This BMW roadster has succeeded in reinforcing the passion and enthusiasm we have for fine automobiles. 

■ Inside or outside, BMW spared no expense dressing up the Z8 with shiny and polished aluminum trim pieces. The multi-spoke steering wheel and simple control knobs and switches exude a sense of elegance inside an already luxurious cockpit.



BMW M Roadster vs Z8

Can the bulldog catch the greyhound?

BMW M Roadster

THE M ROADSTER IS THE BULLDOG of the BMW family. Stocky in stature, muscular and determined-looking, it packs the power to deliver the performance promised by its looks. Its 240 bhp delivered through fat, 245/40ZR-17 Dunlop SP Sport rear tires, accompanied by the earnest growl of the six inline cylinders and bark of twin dual exhausts, can punch this car through the 60-mph barrier in 5.4 seconds. Just accelerating up through the gears gives anyone who drives the M Roadster sheer driving pleasure.

With the arrival of its sibling, the Z8, the M Roadster is relegated to being former Top Dog in the open BMW lineup. While admittedly not as graceful, swift and polished as the svelte Z8, its attributes as a sports car keep it proudly in the pack. No lounging on the porch for the M Roadster; it wants to run.

One only need look at the price of the Z8 and at that of the M Roadster, and the value of the Z3-based contender is clear. Its performance numbers are impressive: 0-60 mph in 5.4 sec.; the quarter mile in 14.0 sec.; 0.89g skidpad performance; and an estimated top speed over 135 mph; like we ever *really* drive over 130 in our daily use of a sports car.

This is why we went to Thunderhill Park in Willows, California. On the

■ Swift (below) enjoys the stocky looks and aggressive personality of the M Roadster, with lots of horsepower and torque on tap from a silky-smooth 3.2-liter inline-6. However, argues Kott (opposite), the big-displacement V-8 and the sleeker design of the more sophisticated and addictive Z8 are hard to beat.

track, the car does expose some of its bulldog tendencies. Understeer is present through most corners. During high-speed cornering maneuvers, the M Roadster demonstrates slightly nervous behavior, subtly moving around on the suspension, requiring the driver's inputs to be very smooth. Drivers with skill levels less than that of a professional racer will find the understeering characteristic comforting and are unlikely to experience any nervousness at road speeds.

The interior is a great environment for controlling the M Roadster as it vaults through its paces. Its hot-rod style is echoed in the two-tone wrap-around shapes of the dash and chrome-bezeled instruments. The high, bolstered sport seats give excellent support, and the sturdy roll hoops behind the occupants add the sense of security and confidence.

The view out the front of the M Roadster, with the small bulge in the center of the hood and the broad shoulders of the front fenders, gives the illusion of a tight T-shirt stretched across brawny shoulders. Wrapped

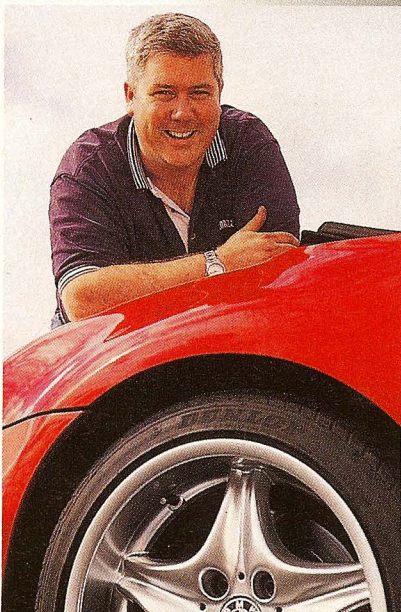
BMW M ROADSTER	
Price as tested	\$43,743
Engine type	3.2-liter dohc 24V I-6
Horsepower	240 bhp @ 6000 rpm
Torque	236 lb-ft @ 3800 rpm
Transmission	5-speed manual
Tires	Dunlop SP Sport 8080; 225/45ZR-17 f, 245/40ZR-17 r
0-60 mph	5.4 sec
Braking 60-0	121 ft
Lap time	2 minutes, 17.28 sec
Slalom	63.0 mph
Skidpad	0.89g

tightly into the cockpit, it's easy to find yourself tugging at the leash, restless and anxious, to run with the big dogs.—*Bert Swift*

BMW Z8

IF YOU HAVE EVER DISPLAYED addictive tendencies, you'd best stay away from the driver's footwell of BMW's Z8, as the skinny pedal down there reigns over the firebreathing 400-bhp, 5.0-liter V-8 that also lurks in the M5's engine bay. Once experienced, you'll have repeated cravings for its shoulder-pinning thrust, near-telepathic throttle response and chunky rumble that burbles from stout-looking chrome pipes.

Yet for all its explosive might, the Z8's M62 engine, driven with its eight throttle butterflies nudged open, is as





docile as Bambi on Valium. Helped by electronic control of both intake and exhaust camshaft timing, this powerplant twists out 85 percent of peak torque (369 lb.-ft.) at a parking-lot crawl—just 1500 rpm.

Equally habit-forming are the Z8's classic roadster proportions, essentially a modernization of the Albrecht Goertz-designed BMW 507 of 1955. Goertz himself has said, "If I were to design the 507 today, it would look like the Z8." And what a handsome, long-snouted profile it vaunts, with a short rear deck that tapers gracefully to a soft edge after bulging powerfully around 18-in. wheels and tires, as svelte as the M Roadster is stocky. But technology is not to be denied, as the high-set taillights, front turn signals and vent-mounted turn-signal repeaters all use neon lights, which flash

to full intensity 10 times quicker than incandescent bulbs. And the structure is an all-aluminum hybrid, with a stressed skin and underlying extruded-aluminum space frame.

M Roadster pilots used to its cramped driving position can stretch out in the Z8's cockpit. Though still snug enough to be intimate, there's a feeling of openness provided by the elegant, hooded instrument cluster that's situated dead center. And the dashboard, whose painted top-third evokes the dark, lacquered wood of a Steinway grand piano, cants noticeably forward to the base of the windshield. The steering wheel itself is a work of art, with three "spokes," each consisting of four silver rods, emanating from a small glossy black hub. There is stitched leather, thick carpet and silver-fobbed controls all done with a spare elegance that evoke a 1920s' Great Gatsby feel.

There is nothing dated, however, about the Z8's handling. Wide, sticky Bridgestone Potenza tires apply that impressive torque effectively; and modern suspension geometries, shock valving and springing limit the roll, dive and squat motions that make the M Roadster seem like a hobbyhorse by comparison. "Composure" sums up this chassis quite nicely, a sentiment echoed by Steve Millen after a few laps around Thunderhill Park: "The

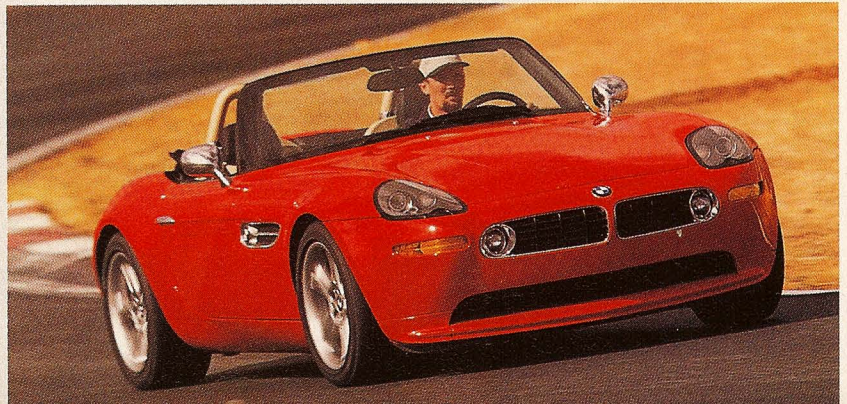
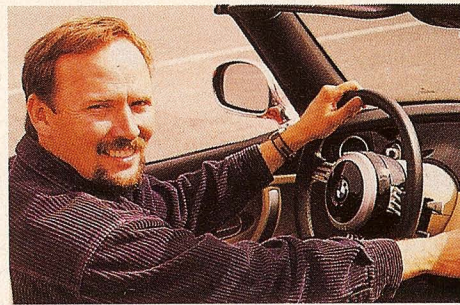
thing with this car is you're going deceivingly quickly arriving at some of these corners at maybe 125, 130...and it's quite smooth the way it does it. All of a sudden you say, 'Gee whiz!'"

Ultimately, we had to give the Z8 (at \$135,303 as tested, an expensive habit) back to BMW. Oh, the withdrawal. Transdermal patch, anyone?

—Douglas Kott

BMW Z8

Price as tested	\$135,303
Engine type	5.0-liter dohc 32V V-8
Horsepower	400 bhp @ 6600 rpm
Torque	369 lb.-ft. @ 3800 rpm
Transmission	6-speed manual
Tires	Bridgestone Potenza RE40; 245/45R-18 96W f, 275/40R-18 99W r
0-60 mph	4.5 sec
Braking 60-0	122 ft
Lap time	2 minutes, 13.30 sec
Slalom	62.3 mph
Skidpad	0.92g



2000 BMW Z8

BMW of North America, Inc.
P.O. Box 1227, Westwood, N.J. 07675
www.bmwusa.com



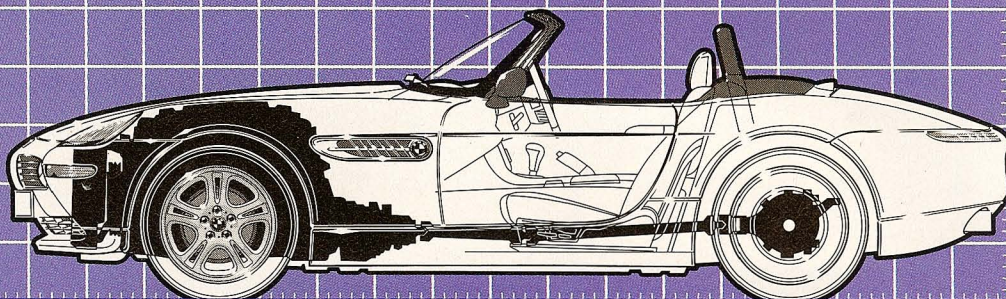
At a Glance...

0-60 mph **4.5 sec**
0-¼ mile **13.0 sec**
Top speed **155 mph***
Skidpad **0.92g**
Slalom **62.3 mph**
Brake rating **excellent**

*Electronically limited.

List Price: **\$128,000**
Price as Tested: **est \$135,304**

Price as tested incl std equip. (dual airbags, side-impact airbags, ABS, stability control, navigation system, auto. climate control, cruise control, 18-in. wheels, leather upholstery, AM/FM/stereo/cassette/CD, security, heated seats, hardtop; pwr seats, window, mirrors, door locks), gas-guzzler tax (est \$2100), luxury tax (est \$4634), dest charge (\$570).



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

SPECIFICATIONS

Engine

Type.....**aluminum block & heads, V-8**
Valvetrain.....**dohc 4-valve/cyl**
Displacement.....**302 cu in./4941 cc**
Bore x stroke.....**3.92 x 3.11 in./94.0 x 89.0 mm**
Compression ratio.....**11.0:1**
Horsepower (SAE).....**400 bhp @ 6600 rpm**
Bhp/liter.....**81.0**
Torque.....**369 lb-ft @ 3800 rpm**
Maximum engine speed.....**7000 rpm**
Fuel injection.....**elect. sequential port**
Fuel.....**premium unleaded, 91 pump octane**

Warranty

Basic warranty.....**4 years/50,000 miles**
Powertrain.....**4 years/50,000 miles**
Rust-through.....**6 years/unlimited miles**

Chassis & Body

Layout.....**front engine/rear drive**
Body/frame.....**alum./alum. spaceframe**
Brakes: Front.....**13.5-in. vented discs**
Rear.....**12.9-in. vented discs**
Assist type.....**vacuum; ABS**
Total swept area.....**646 sq in.**
Swept area/ton.....**342 sq in.**
Wheels
alum. alloy; **18 x 8J f, 18 x 9J r**
Tires
Bridgestone Potenza RE040;
245/45R-18 96W f, 275/40R-18 99W r
Steering.....**rack & pinion, power assist**
Overall ratio.....**20.5:1**
Turns, lock to lock.....**3.0**
Turning circle.....**38.7 ft**
Suspension
Front: **MacPherson struts, split lower A-arms, coil springs, tube shocks, anti-roll bar**
Rear: **multilink, coil springs, tube shocks, anti-roll bar**

General Data

Curb weight.....**est 3600 lb**
Test weight.....**est 3780 lb**
Weight dist (with driver), f/r, %.....**est 50/50**
Wheelbase.....**98.6 in.**
Track, f/r.....**61.1 in./61.7 in.**
Length.....**173.2 in.**
Width.....**72.0 in.**
Height.....**51.9 in.**
Ground clearance.....**5.0 in.**
Trunk space.....**7.0 cu ft**

Accommodations

Seating capacity.....**2**
Head room.....**38.1 in.**
Seat width.....**2 x 18.5 in.**
Leg room.....**45.8 in.**
Seatback adjustment.....**40 deg**
Seat travel.....**7.0 in.**

Drivetrain

Transmission: **6-speed manual**

Gear	Ratio	Overall ratio	(Rpm) Mph
1st	4.23:1	14.30:1	(6500) 37
2nd	2.53:1	8.55:1	(6500) 61
3rd	1.67:1	5.64:1	(6500) 92
4th	1.23:1	4.16:1	(6500) 125
5th	1.00:1	3.38:1	(6500) 154
6th	0.83:1	2.81:1	est (5250) 155*

Final drive ratio.....**3.38:1**
Engine rpm @ 60 mph in 6th.....**2030**
*Electronically limited.

Instrumentation

260-km/h (162-mph) speedometer, 8000-rpm tach, fuel level, coolant temp, clock

Safety

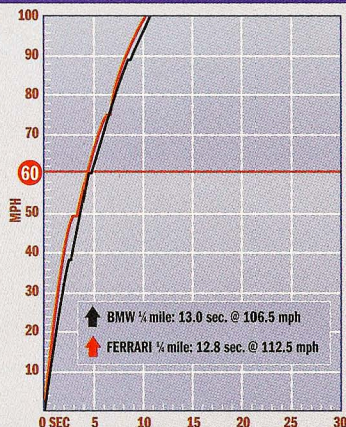
dual front and side airbags, seatbelt pretensioners, anti-lock braking, yaw and traction control (all standard equip.)

PERFORMANCE

Acceleration

Time to speed	Seconds
0-30 mph	1.8
0-40 mph	2.8
0-50 mph	3.6
0-60 mph	4.5
0-70 mph	5.9
0-80 mph	7.2
0-90 mph	8.9
0-100 mph	10.8

Time to distance	
0-100 ft	2.9
0-500 ft	7.2
0-1320 ft (¼ mile)	13.0 @ 106.5 mph



Braking

Minimum stopping distance
From 60 mph.....**122 ft**
From 80 mph.....**215 ft**
Control.....**excellent**
Brake feel.....**excellent**
Overall brake rating.....**excellent**

Fuel Economy

Normal driving.....**est 14.0 mpg**
EPA city/highway.....**13/21 mpg**
Cruise range.....**est 256 miles**
Fuel capacity.....**19.3 gal.**

Handling

Lateral acceleration (200-ft skidpad).....**0.92g**
Balance.....**moderate understeer**
Speed through 700-ft slalom.....**62.3 mph**
Balance.....**mild understeer**
Lateral seat support.....**good**

Interior Noise

Idle in neutral.....**53 dBA**
Maximum in 1st gear.....**80 dBA**
Constant 50 mph.....**70 dBA**
70 mph.....**77 dBA**

Subjective ratings consist of excellent, very good, good, average, poor; na means information is not available.

Test Notes:

Launching off the line is a breeze. The clutch takeup is quick and positive, showing little vibration and slippage. The 4-cam V-8 engine comes on smoothly, with lots of torque available throughout the

entire range. ● Brake pedal feel during panic stops from 60 and 80 mph is excellent. ● Through the slalom, the Z8 plants its rear tires firmly on the asphalt; more aggressive throttle input can make the tail step out.

Test Conditions:

Temperature	Humidity	Elevation	Wind
65° F	56%	75 ft	calm