4x4 PICKUP SHOOTOUT:

• CHEVY SILVERADO • FORD F-150
• DODGE RAM • TOYOTA TUNDRA

MOTOR TREND

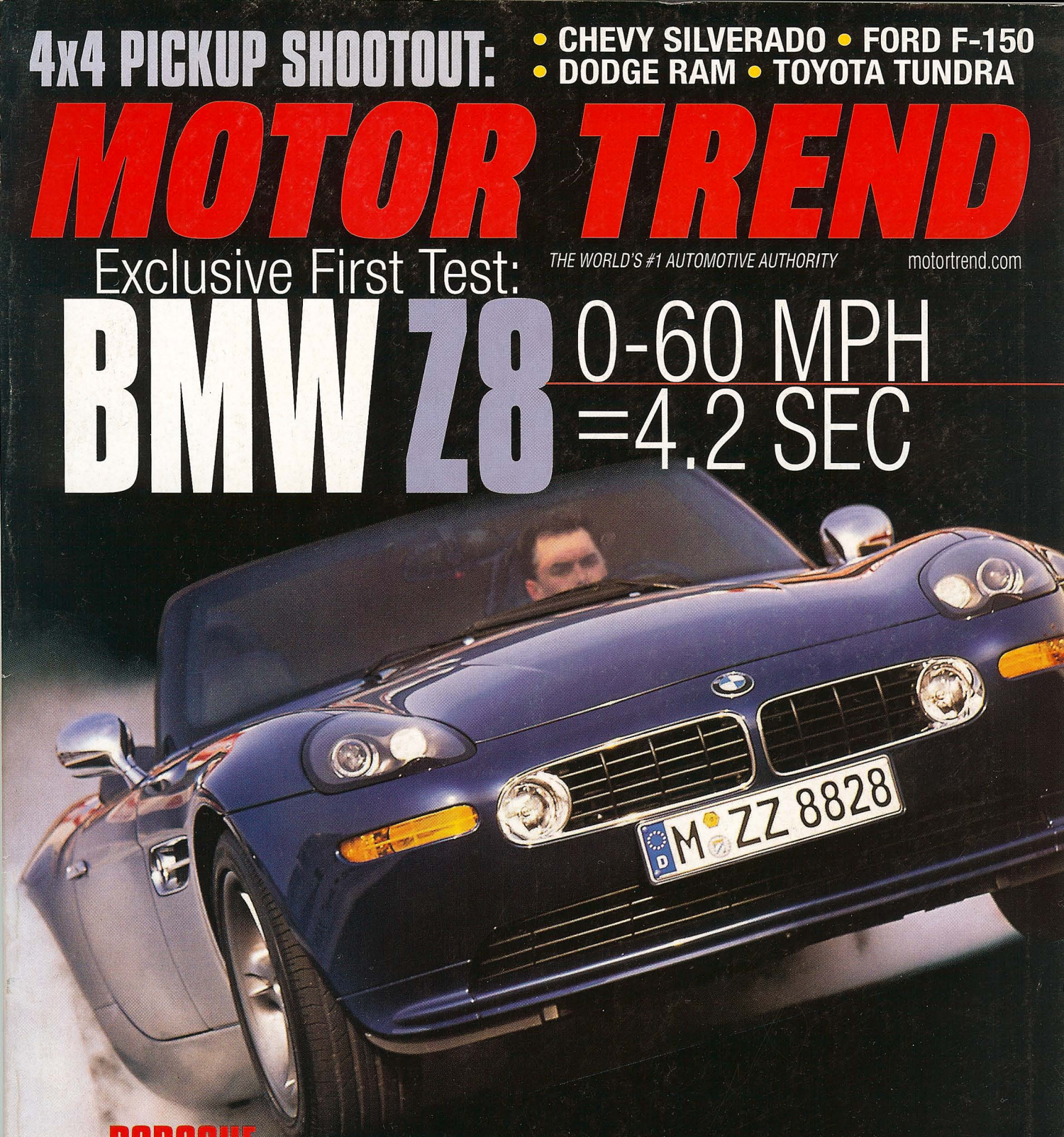
THE WORLD'S #1 AUTOMOTIVE AUTHORITY

motortrend.com

Exclusive First Test:

BMW Z8

0-60 MPH =4.2 SEC



PORSCHE 911 TURBO AUTOMATIC?!

0-60 MPH =3.8 SEC

May 2000

#BXBCKHG *****CAR-RT SORT**C-045
#RNN26010092 4#512864 MT
P690

emap usa

BMW Z8

Zehr gut! First test of the quickest, best-handling BMW ever

by Chris Walton

• PHOTOGRAPHY BY JOHN KIEWICZ

FEW PEOPLE KNEW BMW FULLY INTENDED to produce its '97 Tokyo Auto Show scene-stealer, the so-called Z07. None dreamed how soon, how true to the show car it would be, and certainly not how breathtakingly fast and agile the production Z8 would be. Eclipsing all other one-off show cars that year, the Z07 roadster was rumored to be powered by the 5.0-liter/400-horsepower engine variant developed for the then-yet-to-be-released M5 super-sedan.

Mash the throttle and lane crowders will hear the deep rumble of the awesome V-8 as you become but a memory.

The concept Z07's and production Z8's heritage design came unmistakably from the '55 BMW 507. A ground-breaking car in its own right, the 3.2-liter/ 150-horsepower V-8-powered, aluminum-bodied roadster is worthy of adulation and imitation. With only 252 examples having been produced, the exclusivity and rarity of the 507, combined with its exceptional performance and classic styling, made it the perfect emotional and spiritual predecessor and

Al fresco is the best way to enjoy the Z8. Touch the engine starter button and go bend some corners.

A removeable hard-top and a power softtop make the Z8 a year-round runner.

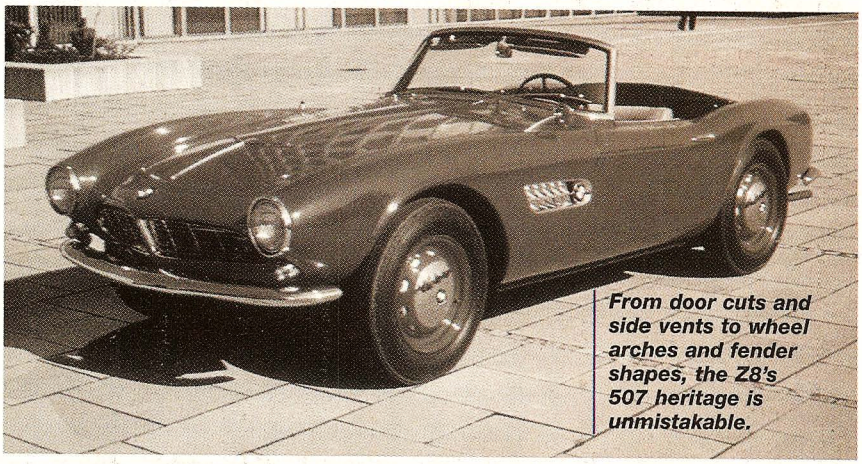
inspirational springboard for the modern BMW designers and engineers of the Z8.

Despite sharing the easy grace and tasteful restraint of the 507's styling, surprisingly, not a single dimension, curve, or detail of the Z8 was lifted directly from it. Rather every aspect was reinterpreted and designed to better suit modern techniques of engineering and manufacturing and the demands of today's safety concerns. The similarities of the Z8 to the 507 lie in the overall concept—a V-8-powered, aluminum bodied, rear-driven two-seat luxury roadster that speaks to the emotional elements of driving. It's as if the Z8 is how one might remember the 507 when viewed through the rose-colored filter of nostalgia and wishful thinking; lending even more sensuous curves, more exotic materials, and unimaginable levels of performance and technology. The Z8 is a masterful blend of old-world open-top sports car motoring and modern-day high-tech wizardry.

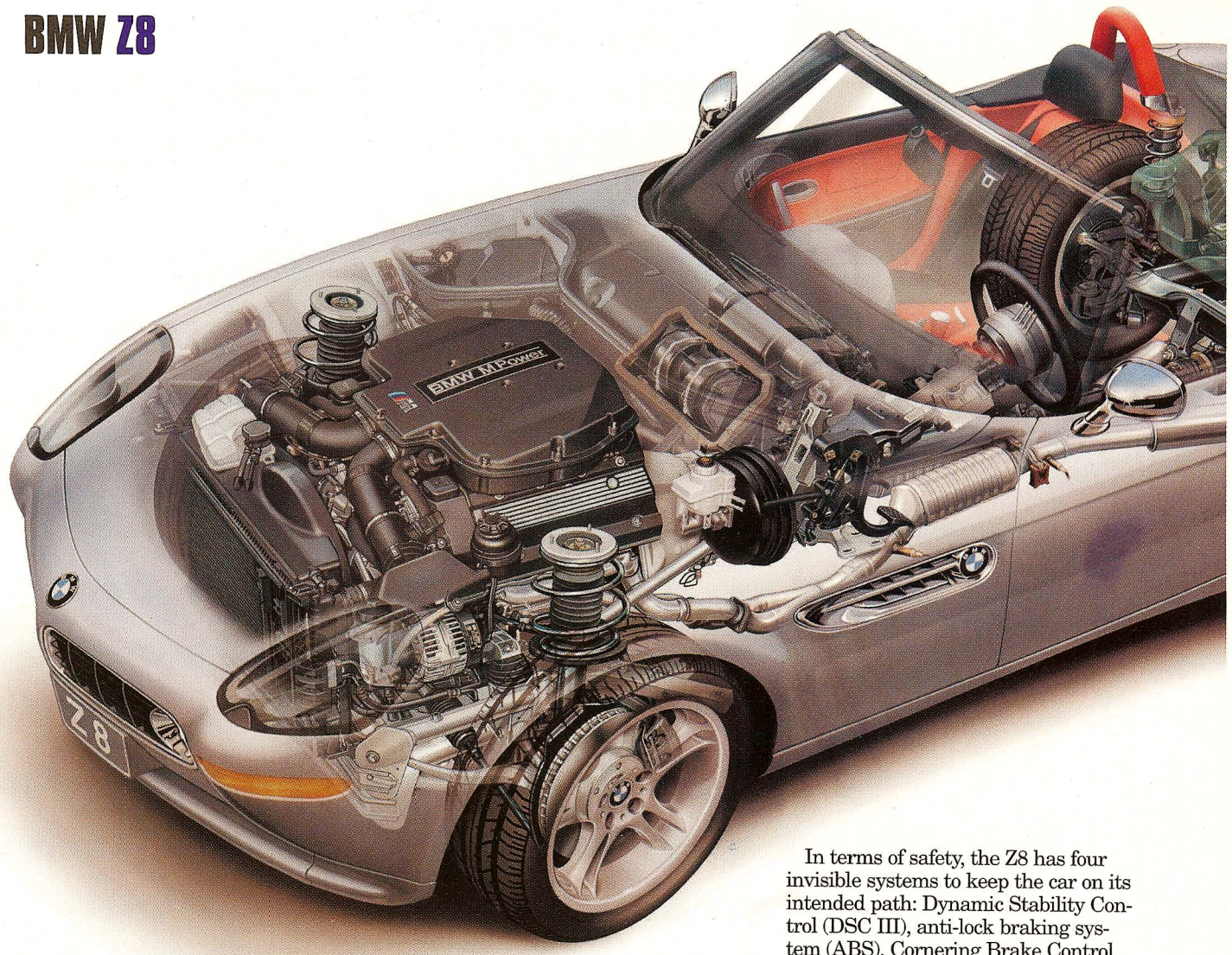
The foundation of the Z8 is an all-aluminum monocoque spaceframe. The extrusion-pressed profiles (frame members) and body panel mounting points are held together to form the overall structure by approximately 1000 rivets and 57 meters of fused MIG-welded seams. The aircraft aluminum body panels are then bolted onto the structure to provide an incredibly rigid platform capable of easy repair should the need arise. In fact, the 506-pound frame has rigidity figures that shame many sedans. It can withstand 10,500 Nm of force per degree of deflection and boasts 21 Hz of flex and 23 Hz of torsional rigidity. In English, that means it's way strong. Attached to that solid structure are aluminum suspension pieces and, of course, the front *mid-engine* powerplant. (Because the entire engine rests behind the front axle, it's technically a mid-engine car.)

Front suspension consists of aluminum axles, coil-over struts, and aluminum control arms that provide low unsprung weight and exceptional strength. The rear suspension components, too, are entirely of aluminum (including the axle) utilizing a multi-link, coil spring, anti-rollbar set up. Front suspension travel is limited to 70 millimeters and the rear to 80.

Despite these sporting settings, very

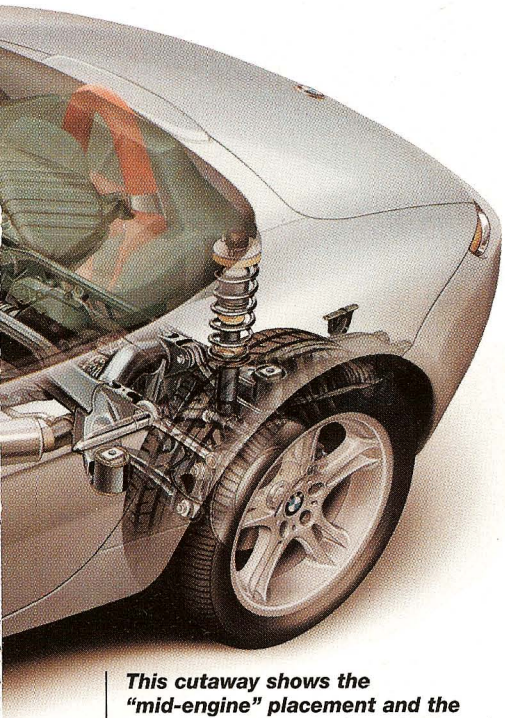


From door cuts and side vents to wheel arches and fender shapes, the Z8's 507 heritage is unmistakable.



little upsets the Z8 even under aggressive driving on uneven pavement. We found the firm ride reasonably compliant, extremely well controlled, and very predictable when we slid the car through winding roads with the electronic nanny shut off. When we can get a Z8 to our handling course, we predict it could post a 1.0g lateral acceleration figure on the skidpad. This car tracks through corners as if it were made of a single ingot of billet aluminum suspended over massive Bridgestone Potenza RE040 rolling stock at each corner; 245/45WR18 front, and 275/40WR18 in the rear. If you're getting the idea the Z8 is made almost entirely of aluminum, you're basically right. Only a few items aren't: camshafts, crank, disc brakes, various hoses and belts, interior coverings, and rocker panels and bumpers, which, by the way, house the antennae for the radio, cellular phone, and navigation system. Even the car's illumination is state of the art. Xenon headlamps that use a mixture of rare gases and metal vapor within a quartz cylinder are ignited by a high electric voltage to light your way, and real neon taillamps bid your foes farewell. There are even subtle fiber-optic turn-indicator lights in the front fender side gills.

In terms of safety, the Z8 has four invisible systems to keep the car on its intended path: Dynamic Stability Control (DSC III), anti-lock braking system (ABS), Cornering Brake Control (CBC), and tire pressure control (TPC). The DSC system is of the type that automatically applies individual brakes to control a sliding, potentially spinning car, and the CBC is a modification to the ABS system that individually controls braking forces in a bend to neutralize under- or oversteer. Incidentally, we were able to coax a slight



This cutaway shows the "mid-engine" placement and the driver position well aft and below the car's centerline. Front/rear weight distribution is a perfect 50/50.

understeer out of the car in a decreasing radius turn with DSC off, but it was easily gathered up by breathing the throttle. On the other hand, with a 50/50 weight distribution and 369 pound-feet of torque at 3800 rpm, throttle-on oversteer is always imminent, but it's so managable with steering or throttle control that the car makes you feel twice the driver you probably really are. Finally, should a tire lose pressure, the TPC system notifies the driver, and specifically designed wheels and run-flat tires allow the car to travel up to 300 miles at a top speed of 50 mph with all the above systems intact.

Power for the Z8—asphalt-ripping, musclecar-spanking amounts of it—comes from a slightly modified version of the M62 engine in the already legendary 2000 BMW M5 sedan. Fresh air supply is controlled by eight individual drive-by-wire throttle butterflies fed through crossflow-cooled intake ducts. The Z8's four camshafts are controlled by an infinitely variable, map-controlled, double VANOS timing system ensuring low-end torque and high-end horsepower. By advancing or retarding the timing of both intake and exhaust valves (which have maintenance-free, self-adjusting, hydraulic tappets), the valve lift remains unchanged. In fact, the 5.0-liter mill produces 85 percent of its maximum available torque at a low 1500 rpm. Horsepower comes later at 6600 rpm for a maximum of precisely 400, *bier-wagen*-pulling, Clydesdale-size horses. And the sound? Oh, the *basso profundo* rumble of the tuned crossover stainless steel exhaust system is utterly jaw-dropping. We caught ourselves blipping unnecessary downshifts merely to hear the staccato roar of the engine, just for the hell of it—whoom-baah, whoom-baah!

A quick trip to the world-famous Pomona Raceway the day after the NHRA drag racing season opener confirmed the Z8 is a truly exceptional supercar. Dropping the pedal on the single-plate dry-clutch at 2000-2300 rpm on the dragstrip with the traction control shut off, the Z8 went absolutely ballistic on a world-class, 4.2-second dead-stop-to-60-mph sprint, on the way to a 10.2-second 0-100-mph dash, and a 12.6-second quarter-mile run at 111.8 mph.

Don't bother flipping to our "Road Test Review"—you'll find the Z8 just set a record for any BMW we've ever tested, and even made the 8.0-liter reigning king of supercars, the Dodge Viper GT-S, take pause.

If you're getting the idea the Z8 is made almost entirely of aluminum, you're basically right.

If anybody plans on trying to duplicate our results, they'd better get used to the sound of the rev limiter barking in protest. Although it does make for a beautiful and symmetric dashboard, placing the tachometer to the right of the center of the dashboard makes redline upshifts particularly challenging. The car revs so freely, and speed builds so rapidly that the telltale "pa-pa-pah" of the engine banging against the limiter becomes almost as common as the people gawking and pointing at the car itself. The designers could've at least placed the tach in the left binnacle, in place of the speedometer that's only there as a mute reminder of how easily the Z8 can coax its driver well over posted speed limits anyway.

Fitted with four vented disc brakes the size of some cars' entire wheels (about 13 inches in diameter), the aluminum missile halted from 60 mph in 116 feet and, more impressively, from 100 mph in 318 feet, and took only 4.3 seconds at that. Do the math and you'll learn it takes only 14.5 seconds to run the famous 0-100-0 test, placing it fifth on our list of cars we've tested in this way—behind a McLaren F1 LM (11.5 seconds), the Dodge Viper GTS and Porsche 911 Turbo S (both 13.7 seconds), and a Ferrari 550 Maranello (13.9 seconds). These are the Z8's supercar peers, the pack with which it hunts lesser, mere sports cars. To be sure, we'll have the BMW Z8 on the roster for our annual supercar shoot-out scheduled for later this year.

What isn't body-color painted in the Z8's intimate interior is either Nappa leather or aluminum. The only Z8 badge on the car rests between the two occupants below the removable windblocker. A nice retro touch is a spoked "banjo" steering wheel housing the requisite airbag. Some felt the retractable doormounted map pockets weren't of the caliber expected on a $130,000 car, but all that well-spent money went into the unbelievable cost of the precision-built frame and M-spec motor—where it belongs.

And now the bad news: Unless you had your name on the list before there was a list, you'll have to wait until

No wimpy six under the Z8's bonnet. It's a 5.0-liter/400-horsepower DOHC V-8. Trunk space is sufficient for two golfbags, even with the top down.

the end of 2001, more likely 2002, for the privilege of putting down about 130 "large" for a Z8. This year, only 1800 examples of the mostly handbuilt car will be made, with just 400 headed to gleefully anxious and wealthy Americans. Heaping praise on a car this good is too easy; like saying the Space Shuttle is a technological marvel, or Ayrton Senna was a great driver, or that Remy Martin Louis XIII is a fine cognac.

We're tempted to say BMW has built a better Viper—with British style and manners, German engineering and reliability, and true musclecar fire—but even that's a bit unbecoming. Suffice to say that we're all witnessing the birth of an automotive legend. As with the Cobra 427, we'll all remember the first time we saw a Z8, the first time we heard one, and, along with a privileged few, the first time we drove one. *MT*

2001 BMW Z8

GENERAL

Location of final assembly	Munich, Germany
Body style	2-door, 2-pass.
EPA size class	Roadster
Drivetrain layout	Front mid-engine, rear drive
Airbag	Dual front and side

POWERTRAIN

Engine type	90° V-8, aluminum block and heads
Bore x stroke, in./mm	3.70x3.50/94.0x89.0
Displacement, ci/cc	301.0/4941
Compression ratio	11.0:1
Valve gear	4 valves/cyl.
Fuel/induction system	Seq. EFI
Horsepower, hp @ rpm, SAE net	400 @ 6600
Torque, lb-ft @ rpm, SAE net	369 @ 3800
Horsepower/liter	80.9
Redline, rpm	7000
Transmission type	Six-speed manual
Axle ratio	3.38:1
Final-drive ratio	2.80:1
Recommended fuel	Unleaded premium

DIMENSIONS

Wheelbase, in./mm	98.6/2505
Track, f/r, in./mm	61.1/61.7 / 1553/1568
Length, in./mm	173.2/4400
Width, in./mm	72.0/1830
Height, in./mm	51.8/1317
Base curb weight, lb	3487
Weight distribution, f/r, %	50/50
Cargo capacity, cu ft	7.2
Fuel capacity, gal	19.2
Weight/power ratio, lb/hp	8.7

CHASSIS

Suspension, f/r	Struts, coil springs, lower control arms/multilink, coil springs, anti-roll bar
Steering type	Rack and pinion, power-assist
Ratio	20.5:1
Turns, lock to lock	3.0
Brakes, f/r	Vented disc/vented disc, ABS
Wheels, in., f/r	18x8.0/18x9.0, cast aluminum
Tires	Bridgestone Potenza RE040
Front/rear	245/45R18 96W/275/40R18 99W

PERFORMANCE

Acceleration, sec	
0-30 mph	1.6
0-40 mph	2.5
0-50 mph	3.3
0-60 mph	4.2
0-70 mph	5.4
0-80 mph	6.7
0-90 mph	8.1
0-100 mph	10.2
Standing quarter mile, sec/mph	12.6/111.8
0-100-0 mph	14.5
Braking, 60-0 mph, ft	116
Braking, 100-0 mph, ft	318
Fuel economy, city/hwy., mpg	14/23 (est.)
Estimated range, city/hwy., mpg	268/441

PRICE

Base price	$128,000
Price as tested	$128,000

www.bmwusa.com

At our test track, the Z8 romped 0-60 mph in just 4.2 seconds.