



IT MAY COME as a surprise to many readers that the Porsche 911 is now a 10-year-old model. In a way remembering it was a surprise to us, even though we've known all along that it was introduced as a prototype at the Frankfurt Show in 1963. At that show it was called the 901, this being its Porsche Engineering project number; but as soon as that designation was public the people at Peugeot let it be known they had designations with a zero in the middle all wrapped up. Thus it became the 911 when it went into production in late 1964.

Usually when a basic model gets that old we're apt to find it "long in the tooth" or "out of date" or something undesirable. This isn't just fashion consciousness; the fact is that most cars whose engineering goes back that far are clearly outdistanced by more recent designs; sooner or later the old model can no longer compete in the marketplace as a result, and if the manufacturer is sharp it will have a new model ready to go when the time comes.

The end of the 911 is being predicted, all right—but not because anyone considers it outdated. It's simply because it may be that the 911 can't be gracefully adapted to meet certain forthcoming U.S. safety regulations. Oh, there are areas where the 911 looks a little weak. Any car with nearly 60% of its weight on the rear wheels will have some tendency to oversteer, and even with all the taming that's been done to it over the years that is still its final handling characteristic. Nor is its high-speed stability in a straight line impressive. It makes an

inordinate amount of racket when heard from the outside, even though development has made it much quieter inside. And its shift linkage, excellent considering the distance from shift lever to gearbox, isn't the equal of the best in front-engine cars. But the dynamic little carmaker in Stuttgart-Zuffenhausen, West Germany has done such a thorough job of keeping the 911 up with the times that hardly anyone would deny it's still one of the best sports cars to be had.

That 901 shown in 1963 was a fairly sharp departure from the 356 model Porsche had produced in various forms from 1952 onward. It had six cylinders instead of four, 2+2 seating, entirely new suspension and a larger, also entirely new body. But it was clearly a Porsche—nobody could have mistaken it for anything else. Early owners of 911s found, however, that Porsche—which with the 356 had attained a certain reputation for infallibility—was indeed fallible. Like most all-new models the 911 had plenty of bugs, and some of them took a long time to correct; Porsche, after all, was a small company without a comprehensive test program in the sense of a huge American carmaker's, and it seems inevitable in retrospect that the 911 would depend upon some of its early owners for some of the development work. Our owner survey for the 911, conducted in early 1969, showed that sparkplugs fouled too easily, instruments had a high failure rate, carburetors were difficult to adjust properly and there was some starter trouble in the early ones.

But Porsche had a winning design and settled down for a long haul of development, improvement and expansion of the



PHOTO BY JOE RUSZ

911 concept. The original 2-liter 911 engine developed 130 bhp by the conservative German DIN measurement method, using Weber carburetors; options were few by today's standard.

In 1966 came the first additional 911 model: the 911S, with 160 bhp, altered gearing, front and rear anti-roll bars (the original 911 had none) and internally ventilated brakes. The line expanded in 1968 to three versions: 911L, the "luxury" version; the 911S as before; and a 911T with detuned 110-bhp engine and a lower price than had been possible for a 911 before. A factory racing version, the 911R, had made its debut in 1967: with a tuned engine it developed 210 bhp @ 8000 rpm, had a larger fuel tank and was of course substantially lighter than the road 911s.

The 1968 model year was an awkward one for Porsche in the U.S. This was the first year emission standards were applied to imported cars, and Porsche did a rush job of meeting the standards by applying air-injection pumps to the 911s (and the 4-cylinder 912). The 1968s ran miserably, and the 911S wasn't even available here because the factory couldn't get it ready in time; instead we got a straight 911 and a 911L that was like the 911S except for the engine.

The 911 also got its first taste of automatic transmission in 1968, with the option of a 4-speed semiautomatic consisting of a regular 4-speed gearbox, a torque converter and a vacuum servo to disengage the conventional clutch upon signal from an electric switch in the shift linkage. You couldn't get this on the 911S for the next few years, but today you can have it on any road-going Porsche available in the U.S.

For 1969, the factory got things straightened out, dispensing with the air pumps and using Bosch mechanical fuel injection to give the upper-class 911S good drivability and high performance. The staple model was christened 911E (the E for *Ein-spritzung*), now developed 140 bhp and was given the luxury treatment with a self-leveling hydropneumatic strut replacing the front torsion bars and shock absorbers; for some reason the E also had 14-in. wheels. The S also got fuel injection, which helped bring it up to 170 bhp, and all 911s had a slightly longer wheelbase and flared-out body sides to accept the ever-widening wheels and tires. The 911T became available in America for the 1969 model year; it retained carburetors. The 1969 version of the 911R was up to 230 bhp.

For 1970 the big change was an across-the-board displacement increase to 2.2 liters; this boosted power to 125 for the T, 155 for the E and 180 for the S, and the performance figures reflected it. No 911R was listed for 1970.

Changes were slight in 1971, but Porsche had another engine-displacement increase ready for 1972—to 2.34 liters. This was when most imported cars switched to regular fuel, and Porsche did it by the usual method: increasing displacement and dropping compression ratio. But in the bargain the Porsche buyers also got some extra power: the T was now up to 130 bhp DIN (and now had fuel injection), the E up to 165 and the S at 190. That's where all three remain for 1973, give or take a few bhp because of differences between the DIN rating method and the SAE net method used now in the U.S. The other important mechanical change for 1972 was a rear-



Plush, air-conditioned cockpit of the 911S (above) contrasted with Carrera RSR's no-nonsense atmosphere and shell bucket seats.



range of the 5-speed gearbox's shift pattern: whereas 2nd, 3rd, 4th and 5th had been in the "H" and 1st to the left of it, now the first four gears were in the H and 5th was to the right of it. As we had asked for this arrangement we were glad to see the 911 get it. This year's 911s are a few inches longer with their big black battering rams to meet our new bumper regulations and there are other detail changes like some high-style wheels for the 911E and a front underbumper spoiler for E and S. The option list for today's 911 is about a kilometer

long. There's a choice of different-make shocks, you can now get electric windows and sunroof, they'll paint your car to match your color sample—you might say half the fun of having a 911 is ordering it.

The Carrera RS

THIS YEAR also saw the introduction of a new racing 911—the Carrera. For homologation purposes Porsche built an initial batch of 500 Carrera RS coupes (the road version) and they were snatched up so fast that a second production run is well underway. You can't legally get a Carrera RS for road use in the U.S., alas, but it's mouth-watering to consider: lighter than the 911S by over 300 lb., powered by a 200-hhp, 2.7-liter version of the trusty six (the extra capacity obtained by boring from 84 to 90 mm) and bedecked with a big tail spoiler that has been demonstrated to improve the 911's high-speed stability in a straight line.

The Carrera RS has an even more interesting option list, and part of what's so interesting about it is what *doesn't* come on the standard model. After telling us the Carrera RS has fiberglass bumpers and spoilers, widened rear fenders, special seats, reinforced suspension, special shocks, wider rear wheels and tires, competition steering wheel, bigger anti-roll bars, decals instead of chrome, and thinner window glass, the list goes on to tell us the RS has less sound insulation than a regular 911 and no bumper moldings, bumper guards, doorsill trim, undercoating, hood springs, glovebox or lid, righthand sunvisor, jump seats, clock, dashboard trim or coathooks! Well, at least we know why it's light.

Now, with that list of what's not there, we have a homologated lightweight race car. Probably not many customers for the road Carrera really want their cars that stripped, so the next entries on the list are two "conversion orders" that give the buyer his choice of road-style equipment to bring the Carrera back toward the equipment level of the 911S. But all this must be fitted to the Carrera after it's produced to keep the homologation in order!

Turn the page of the option sheet after those two conversion orders and you'll find the third conversion order—number 491, it's called—that transforms the RS into the car that Carrera name is all about: the racing Carrera RSR.

The Carrera RSR

THE FACTORY price for the RS is about \$14,000. Conversion Order 491 produces a \$22,500 RSR. Now the front fenders are widened, the rear ones flared out far more. The fiberglass front "bumper" becomes a spoiler with a central air intake for the oil cooler. There's a rollbar, a sprinkler fire-extinguishing system, a 29-gallon (110-liter) plastic fuel tank (or, at \$1500 more, a 120-liter safety tank), double-harness seatbelts for the driver, a real racing seat for him and a token seat for a passenger and a 10,000-rpm tach. The torsion bars of the front suspension



are bigger and there are three sizes of adjustable front anti-roll bars available. At the rear, again the torsion bars are bigger; here there's only one size anti-roll bar to be had but it's adjustable too. Bilstein shocks of a specific adjustment range are used at both ends.

The wheels and tires of the Carrera RSR are the latest evidence of a long-building trend to greater difference between front and rear width as well as greater overall width. The front wheels are 9 in. wide and carry super-low-profile Dunlop 230/600-15 tires; at the rear the rim width is 11 in. and the tires 260/600-15.

Brake discs for the RSR are straight from the 917 Can-Am car—radially vented and cross-drilled—and are applied by the 917's 4-piston calipers. Front-to-rear braking power distribution can be adjusted to suit individual circumstances.

The Carrera RSR engine is one large step further developed than the RS unit, which is tuned not much differently from the 911S engine. Its bore is taken out another 2 mm to give 2807 cc; the compression ratio is raised from 8.5:1 to 10.3:1, the cam timing made as radical as practical for racing use, the fuel injection recalibrated; but the engine retains only one camshaft per bank. Some handwork is done on the engine case and porting to improve breathing, but generally the materials are the same. Naturally the power curve moves to the right as well as up; whereas the RS gets its 200 bhp at 6300 rpm (actually 200 rpm lower than for the 911S) the RSR generates its 280 bhp at 8000 rpm. Only the 5-speed gearbox is available—the RS can be ordered with 4-speed or 5-speed—and the RSR transmission has a pump for pressure lubrication and its own oil cooler.

So there you have it—what Porsche thinks it takes to make the 911 into a winning race car these days. That the Carrera RSR is a winning car we hardly have to tell you, what with the Daytona, Sebring, Targa Florio and Trans-Am wins you've already been reading about. This car comes close to being a winner "out of the box," and farther along we'll see what a Porsche racing expert thinks is responsible for the fantastic performance of the car.

Our Test Cars

THAT EXPERT is our longtime friend Alan Johnson, who's been racing Porsches for 13 years, has two GT class wins at Sebring, four SCCA national championships to his credit and is the author of our popular Bond/Parkhurst book *Driving in Competition*, now out in its second edition. Alan, who's co-owner of Bozzani Porsche-Audi in Monrovia, Calif., and Johnson-Bozzani P-A in Phoenix, Ariz., offered us the Bozzani demonstrator 911S (with the front bumper rams removed) and his fresh new Carrera RSR for our comparison test—and furthermore offered his services in helping us test them at Ontario Motor Speedway.

The 911S was a striking deep-purple coupe with over 2500



In the 911S an air cleaner and an air-conditioning compressor almost hide the engine. In the Carrera RSR you can see the works.



miles of demonstrator service behind it. The options from that long list, plus one (a stereo radio and tape system) not on it, added nearly \$3000 to its already 5-digit list price and made it the fanciest 911 we've ever tested at our home base.

We put the 911S through all the normal road-test paces. Soon after it arrived it developed a fuel-injection fault; this corrected, it ran as a Porsche should, with good drivability, no problems starting from cold and no "lean surge"—all rather remarkable for an engine of fiendishly high specific output relative to other

smog-controlled engines. Probably because of the hard miles of testing, its gearbox didn't shift as well as the Porsche 5-speed usually does and would hang up a bit on a fast shift from 2nd to 3rd or 4th to 5th.

Those who remember our test of the 1972 911E may find our acceleration times for this S disappointing. According to Alan there's nothing surprising in this data that shows the S over a second slower to 60 mph and nearly a second slower in covering the standing $\frac{1}{4}$ mile. That the gap has narrowed by the $\frac{1}{2}$ -mi mark gives the clue: the E is the quicker car operating in the speed range one uses in America but the S will pass it above the 100-mph mark. This held true with the S we tested even though it had slightly shorter gears fitted by Bozzani from the wide selection of ratios available out of Porsche parts books (these affected its top speed also).

The S turned in a surprisingly low fuel-economy figure—only 12.5 mpg. In these days of falling fuel economy perhaps we shouldn't be surprised at anything, but it seems more of a penalty relative to last year's E figure of 18.6 mpg than the extra power and 1973-style emission control warrant.

In handling and braking, the 911S continues to rank among the best-performing road cars. This car, with the latest Michelin XWX tires on the standard alloy 6-in. rims, turned in the highest cornering power for any road 911 we've tested, going just over 0.8g and nearly equalling exotica like Ferraris and Maseratis. Aside from steady-state cornering numbers, the S is the same 911 as ever, only more—with superb response to steering efforts, that slightly twitchy feel that has always characterized the model, and final oversteer that comes on fairly easily but smoothly and, at least to an experienced driver, controllably. These excellent tires also help the S's brakes pull it to a swift stop from cruising speeds, albeit with a little drama as the rear wheels try to lock. Again we were in for a little surprise as the brakes showed modest fade in our 6-stop test: something no 911 had done for years.

No question about it, the car is still a great one. The 911S is a hairy, fullbore performance machine, yielding its margins of performance only in the upper reaches of its own capabilities and demanding certain sacrifices, such as low-speed power, fuel economy and extra money, in return for those margins. Those margins are academic in most of America—but the purpose

of this test wasn't to rate the S relative to other road Porsches but to establish the performance level of the hottest road Porsche for comparison with the racing Carrera.

Alan's Carrera RSR, which he'll be racing this season, was hot off the boat—he was getting acquainted with it just as we were during this test. Naturally we didn't put it through a road test; instead, we got it and the 911S together at Ontario for a spoiler-to-spoiler workout.

First we put the RSR through our regular objective performance measurements. The numbers tell a story, all right—if we didn't know how extensively the Carrera RSR differs from the 911S we might be startled. Acceleration figures, for instance: over 3 sec quicker through the $\frac{1}{4}$ mi, and this isn't a $\frac{1}{4}$ -mi car—we tested it with the standard, rather tall gearing any RSR fresh from the factory has. The factory expects a racing customer to tailor the car's gear ratios to his individual needs. But the RSR could reach 100 mph in 12 sec flat, using not the 8000-rpm redline but a 7200-rpm limit Alan asked us to observe with the new car! All this performance is blended, as we found to be true of the 917 we tried last year, with a remarkable degree of tractability—the engine idles at around 1200 rpm and can be driven smoothly away from rest. It's louder than the 911S, for sure, and really sounds off with a resonance at 5000-5500 rpm; above that it smooths out again, and the power delivery in the upper rev reaches is a thrill your faithful road testers don't often experience.

The handling and braking measurements also show how far below race-car performance even the most sophisticated road cars are. Look at those stopping distances—and that 0.9g+ skidpad figure, obtained with "wet" racing tires. Dry-weather tires should put it over 1g. Ah well, think of tomorrow; after all, today's race-car performance is that of tomorrow's road car.

But how do the Carrera RSR and 911S compare on a road circuit? That comparison we left to Alan, who should know better than almost anyone this side of Peter Gregg and Hurley Haywood. Here's how Alan sees it:

"I took the 911S out first and really felt good in it. It had the Michelin XWXs, which are good tires. Despite having sway bars front and rear it seemed to have quite a bit of body roll. On freeways or ordinary roads its suspension is a good compromise and I wouldn't want it any stiffer, though. The 911S behaved fairly predictably and was easy to drive, though the slide points were earlier than the race car's—as I said, it rolls a lot, maybe more around the front. But it was fun to drive, and I can't say that about all Porsches on a race course. For instance, a 911 without bars or an early 914 is no fun at all.

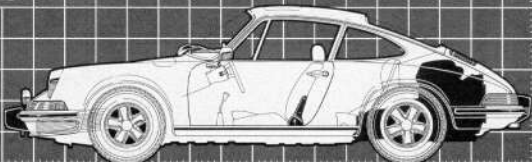
"Ontario is a complicated course. First time I drove there I borrowed a car from Bob Bonduant to learn the course. I know it well now, and to compare these two cars I tried to pick a standard method of driving quickly rather than work up to the absolute fastest time in either car. I was honestly surprised at the large difference in lap times, because the Carrera didn't seem all that much quicker. This was the first Carrera for me, though it was very much like the 2.5-liter 911 I drove at Le Mans two years ago. But it is the best racing car we've ever received from Porsche.

"If anything here is interesting, it's that with the Weissach proving ground now in operation, you get a race car that's already been tested. This car had been run. The tires and brakes were scrubbed in and there were enough kilometers on the speedometer I knew it had done some work. We tested the car at Ontario for you just as it came to us, too. We wanted to know what we had. It came with 1½ degrees of negative camber at the rear, and apparently that's very close to what it should be. Going into the banking at the end of the straightaway at about 140 mph, I got a small bit of oversteer on lift-off, but applying throttle again restored the bit.

"Another thing—a Porsche that does this well in fast corners usually hasn't been good also in tight, slow corners. This one surprised me by being good in both. It's probably because of the bigger tire sizes plus the bigger difference between fronts



Porsche 911S



SCALE: 1" = 80MM

PRICE

List price, west coast \$10,160

Price as tested,

west coast \$13,021

Price as tested includes 5-sp gearbox (\$165), Koni shocks (\$56), elec sun roof (\$447), elec windows (\$194), air cond (\$857), tinted glass (\$142), Recaro seats (\$399), AM/FM stereo & tape player (\$300), foglights (\$367), leather upholstery (\$496), fender trim (\$38)

GENERAL

Curb weight, lb	2570
List weight	2870
Weight distribution (with driver), front/rear, %	41/59
Wheelbase, in.	89.4
Track, front/rear	54.1/53.3
Length	168.4
Width	63.4
Height	52.0
Ground clearance	5.9
Overhang, front/rear	35.0/44.0
Usable trunk space, cu ft	6.0
Fuel capacity, U.S. gal	16.4

IMPORTER

Porsche Audi Div, VWoA
600 Sylvan Ave.
Englewood Cliffs, N.J. 07631

ENGINE

Type	sohc flat 6
Bore x stroke, mm	84.0 x 70.4
Equivalent in.	3.31 x 2.77
Displacement, cc/cu in.	2341/143
Compression ratio	8.5:1
Bhp @ rpm, net	181 @ 6500
Equivalent mph	131
Torque @ rpm, lb-ft	154 @ 5200
Equivalent mph	105
Fuel injection	Bosch mechanical
Fuel requirement, regular, 91 oct	
Emissions, gram/mile:	
Hydrocarbons	2.8
Carbon Monoxide	18.0
Nitrogen Oxides	3.0

DRIVE TRAIN

Transmission	5-sp manual
Gear ratios: 5th (0.821)	3.63:1
4th (1.08)	4.78:1
3rd (1.43)	6.33:1
2nd (2.00)	8.86:1
1st (3.18)	14.06:1
Final drive ratio	4.43:1

CHASSIS & BODY

Layout	rear engine/rear drive
Body/frame	unit steel
Brake system	vented disc;
	11.1-in. front, 11.4-in. rear
Swept area, sq in.	500
Wheels	forged alloy, 15 x 6J
Tires	Michelin XWX, 185/70-VR 15
Steering type	rack & pinion
Overall ratio	17.8:1
Turns, lock-to-lock	3.1
Turning circle, ft	32.5
Front suspension	MacPherson struts;
	lower arms, torsion bars, tube
	shocks, anti-roll bar
Rear suspension	semi-trailing arms;
	torsion bars, tube shocks, anti-roll
	bar

ACCOMMODATION

Seating capacity, persons	2
Seat width	2 x 20.0
Head room	39.5
Seat back adjustment, deg.	75

MAINTENANCE

Service intervals, mi:	
Oil change	10,000
Filter change	10,000
Chassis lube	none
Tuneup	10,000
Warranty, mo/mi	24/24,000

CALCULATED DATA

Lb./bhp (test weight)	15.9
Mph/1000 rpm (5th gear)	20.8
Engine revs./mi (60 mph)	2950
Piston travel, ft./mi	1360
R&T steering index	1.01
Brake swept area, sq in./ton	349

RELIABILITY

From R&T Owner Surveys the average number of trouble areas for all models surveyed is 12. As owners of earlier-model 911s reported 8 trouble areas, we expect the reliability of the 911S to be better than average.

ROAD TEST RESULTS

ACCELERATION

Time to distance, sec:	
0-100 ft	3.3
0-500 ft	9.2
0-1320 ft (1/4 mi)	16.3
Speed at end of 1/4 mi, mph	93.5
Time to speed, sec:	
0-30 mph	3.3
0-40 mph	4.7
0-50 mph	6.1
0-60 mph	7.8
0-70 mph	9.8
0-80 mph	12.3
0-100 mph	19.1

SPEEDS IN GEARS

5th gear (7000)	142
4th (7000)	104
3rd (7000)	78
2nd (7000)	56
1st (7000)	35

FUEL ECONOMY

Normal driving, mpg	12.5
Cruising range, mi (1 gal res.)	193

HANDLING

Speed on 100-ft radius, mph	34.8
Lateral acceleration, g	0.811

BRAKES

Minimum stopping distances, ft:	
From 60 mph	159
From 80 mph	277
Control in panic stop	good
Pedal effort for 0.5g stop, lb.	50
Fade: percent increase in pedal effort to maintain 0.5g deceleration in 6 stops from 60 mph	10
Parking: hold 30% grade?	yes
Overall brake rating	very good

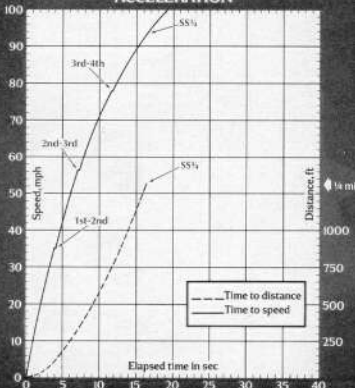
INTERIOR NOISE

All noise readings in dBA:	
Idle in neutral	60
Maximum, 1st gear	98
Constant 30 mph	72
50 mph	73
70 mph	77
90 mph	81

SPEEDOMETER ERROR

30 mph indicated is actually	25.0
50 mph	45.0
60 mph	55.0
70 mph	65.0
80 mph	74.0
Odometer, 10.0 mi	10.0

ACCELERATION



and rears. They've evolved from 7 in. all around to 8 front, 9 rear to today's 9 front, 11 rear. The spring rates have been matched to these big tires and wheels, and it was done at Weissach. This is going to filter into the road cars, you can be sure of that.

"We don't expect a winning car from the factory. But where we used to get just hardware, now we get something very close to a working race car.

"Back to the comparison. With the stock 911S going into that first turn, that banking, I hadn't been able to work up enough speed that I had to lift off, but the car felt maybe a bit wallowy, probably because of the radial tires.

"The feel of acceleration is always heightened by any attitude change of the car—if the front end lifts a lot the car seems quicker. The RSR is stiffer than the 911S, so the difference in acceleration feel isn't as great as the real difference.

"The race engine starts hard—maybe we need to know how to start it easier—but it idles well and runs tractably. It was difficult to get it off the line fast for acceleration tests, but I wound up revving the engine to about 6500 and popping the clutch to get those big tires spinning.

"On the race course I was getting only 7500 in 4th gear going

down the straight. With gears for the course I'd have been able to get up full speed.

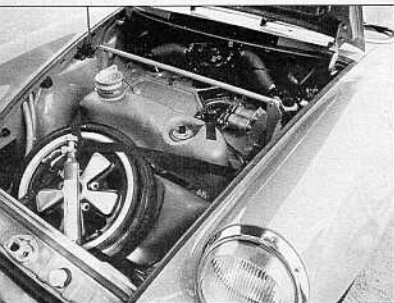
"The 911 really deserves a tribute. Ten years old and still getting better. And it's brought a degree of safety to racing—I don't know of a single instance where anyone has been killed racing one."

Alan's lap times averaged out like this at Ontario:

	911S	Carrera RSR
Time, sec	2:34.0	2:17.0
Speed, mph	74.66	83.93

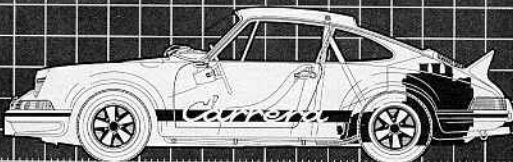
(3.194-mi course)

It was an exciting and enjoyable day for us, getting the feel of these ultimate Porsches and their phenomenal performance in the two different regimes. A test like this always leaves us with an impression that, no matter how many times we experience it, it is something of a revelation: that first-rate, very fast road car, so impressive on the road, suddenly seems a bit squishy, terribly quiet and mild-mannered and just not very thrilling when pitted against a racing car on a race track. But then that racing car would be pretty ill-suited to the freeway. 911S and Carrera RSR—either in its place is pretty great. 🏁



Carrera RSR details: large fuel tank, Space Saver spare and cross brace leave no room in front compartment; cross-drilled brake discs from 917 can be seen through 11-in.-wide rear wheels.





SCALE: 1/4" = 1"

PRICE

Basic price, at factory...\$14,000
 Price as tested,
 at factory...\$22,500
 Price as tested includes conversion
 order 431 (see text for details)

IMPORTER

Porsche-Audi Div. as for 911S
 (not available in U.S. except as race car)

GENERAL

Dry weight, lb...1850
 Race weight...2015
 Weight distribution (with driver),
 front/rear, %...43/57
 Wheelbase, in...89.4
 Track, front/rear...55.2/56.0
 Length...162.5
 Width...85.0
 Height...52.0
 Ground clearance...5.9
 Overhang, front/rear...34.0/39.1
 Usable trunk space, cu ft...nil
 Fuel capacity, U.S. gal...29.0

ENGINE

Type...solic flat 5
 Bore x stroke, mm...92.0 x 70.4
 Equivalent in...3.62 x 2.77
 Displacement, cc/cu in...2806/171
 Compression ratio...10.3:1
 Bhp @ rpm, net...280 @ 8000
 Equivalent mph...190
 Torque @ rpm, lb-ft...215 @ 6300
 Equivalent mph...149
 Fuel Injection...Bosch mechanical
 Fuel requirement, premium, 100-ect

CHASSIS & BODY

Layout...rear engine/rear drive
 Body/frame...unit steel with
 some fiberglass panels
 Brake system...vented and
 perforated discs; 12-in. disc
 front and rear
 Swept area, sq in...513
 Wheels...forged alloy;
 15 x 9 front, 15 x 11 rear
 Tires...Dunlop racing (wet);
 230/600-15 front, 260/600-15
 rear
 Steering type...rack & pinion
 Overall ratio...17.8:1
 Turns, lock-to-lock...2.8
 Turning circle, ft...35.2
 Front suspension: MacPherson struts,
 lower arms, torsion bars, adjustable
 tube shocks, adjustable
 anti-roll bar
 Rear suspension: semi-trailing arms,
 torsion bars, adjustable tube
 shocks, adjustable anti-roll bar

ACCOMMODATION

Seating capacity, persons...2
 Seat width...2 x 13.0
 Head room...38.0
 Seat back adjustment...by wrench

CALCULATED DATA

Lb/bhp (race weight)...7.2
 Mph/1000 rpm (5th gear)...23.3
 Engine revs/mi (60 mph)...2575
 Piston travel, ft/mi...1190
 R&T steering index...0.99
 Brake swept area, sq in./ton...500

DRIVE TRAIN

Transmission...5-sp manual
 Gear ratios: 5th (0.724)...3.21:1
 4th (0.925)...4.10:1
 3rd (1.26)...5.58:1
 2nd (1.83)...8.12:1
 1st (3.18)...14.06:1
 Final drive ratio...4.43:1

INSTRUMENTATION

Instruments: 300 km/h speedo,
 10,000-rpm tach, 99,999 odometer,
 999.9 trip odo, oil press.,
 oil temp, fuel level, oil level
 Warning lights: alternator, brake
 system

ROAD TEST RESULTS
ACCELERATION

Time to distance, sec:
 0-160 ft...3.0
 0-500 ft...7.8
 0-1320 ft (1/4 mi)...13.2
 Speed at end of 1/4-mi, mph...105
 Time to speed, sec:
 0-30 mph...2.5
 0-60 mph...5.6
 0-90 mph...10.0
 0-100 mph...12.0
 0-130 mph...24.6

BRAKES

Minimum stopping distances, ft:
 From 60 mph...112
 From 80 mph...223
 Control in panic stop...very good
 Pedal effort for 0.5g stop, lb...60
 Fade: percent in pedal effort to
 maintain 0.5g deceleration in 5
 stops from 60 mph...nil
 Parking: hold 30% grade?...no
 Overall brake rating...excellent

INTERIOR NOISE

All noise readings in dBA
 Idle in neutral...70
 Maximum, 1st gear...106
 Constant 70 mph...92
 50 mph...93

SPEEDS IN GEARS

5th gear (7500)...178
 4th (8000)...142
 3rd (8000)...106
 2nd (8000)...71
 1st (8000)...42

FUEL ECONOMY

Race driving, mpg...approx 6.0
 Race range, mi (5-gal res.)...144

HANDLING

Speed on 100-ft radius, mph...37.3
 Lateral acceleration, g...0.927

SPEEDOMETER ERROR

70 km/h indicated is
 actually...67.5
 80 km/h...77.0
 90 km/h...86.0
 100 km/h...95.5
 120 km/h...113.5

ACCELERATION
