

# CAR and DRIVER

MARCH 1969/60 CENTS

**Tests: Olds Screamer  
Ferrari 365 GT 2+2**

**Additives: Do they work?**

**Mark Donohue tests:**

**Four '69 Porsches**





Does Porsche really build great cars? Mark Donohue finds out on page 34.

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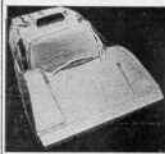
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## CAR=DRIVER



**THIS MONTH'S COVER:** There's a whole new feeling at Ferrari epitomized by the 365 2+2—a car that really does have accommodations for four and still handles and performs like a sports car. Hermann Bachmann had the difficult task of capturing that feeling in a photograph.

**NEXT MONTH'S COVER:** A street version of a McLaren Mk III? They laughed when David Giltens sat down to play, but since the completion of his Ikenga, the scoffers are keeping quiet. Also a first report on the NASCAR opener at Riverside. Don't miss it. On sale March 20.

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■ A mass-made automobile is started for the first time when it is dropped off the end of the production line. It is driven a few feet to the haulaway truck, and then a few more feet later into the showroom. That's its break-in period. The car may be good or flawed. The customer won't know until he buys it. Mass production means fast production, fast delivery.

We at Porsche build fast cars slowly. It takes the customer more time to get one because we don't take short cuts.

When the final bit of hand assembly has been done on the Porsche engine, it's not quickly bolted into a car. First, it's hooked to a dynamometer, a device that tells if it is putting out its full rated horsepower. Speed and power ratings are taken and noted in a permanent card file. (Now and then an engine fails. Bad news for somebody.)

If the engine passes, it goes to its matching body, which has passed dozens of inspections (eight for metal-work alone.) The

car gets another dynamometer test, this one reading power at the rear wheels.

Then, an entirely new series of tests and inspections begins before the car is shipped. There are *three* different road tests by the same driver. First, an overall check-out, next, a high-speed, long *autobahn* run; and, finally, a rough-road test. The driver turns in a signed report.

There's nothing anonymous about building a Porsche. We know who built your engine; we know who tested your car. And they know we know.

What's the Porsche in the picture wearing? It's a *steinschlagschutzhülle*, according to the catalog. A canvas shield to protect the finish from flying stones and sand during testing. The drivers simply call it a bra.

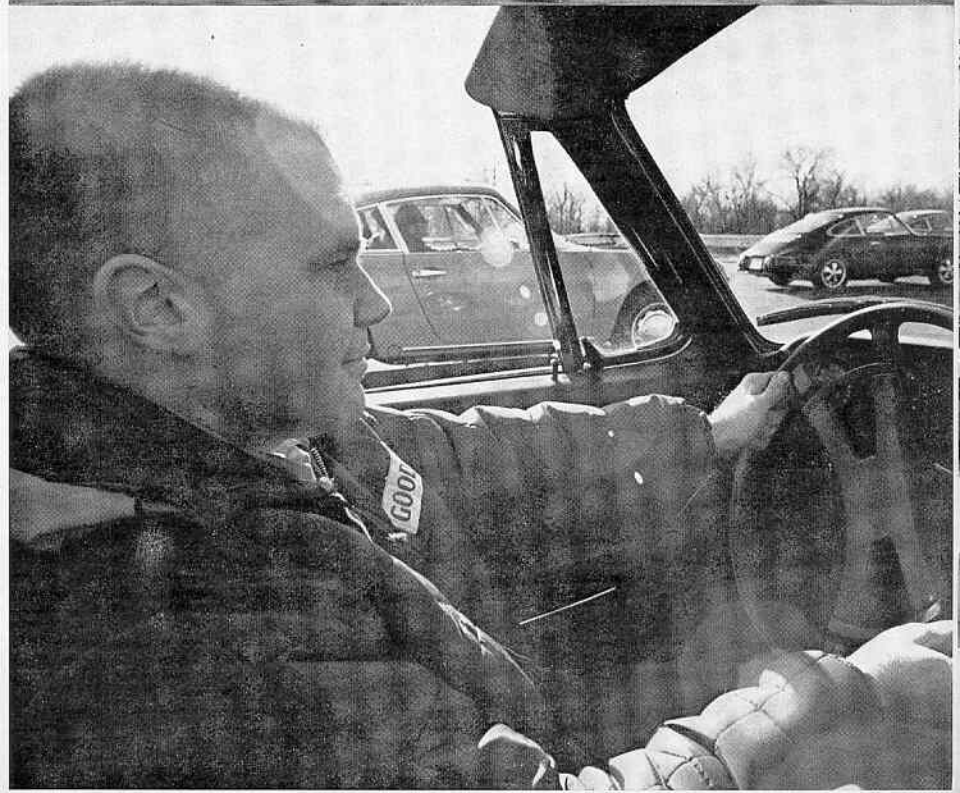
Prices start at about \$5,100, East Coast P.O.E. See your Porsche dealer or write to the Porsche of America Corporation, 100 Galway Place, Teaneck, N.J. 07666.

**PORSCHE**

## Why should you do our work for us?







# THE 1969 PORSCHES

We compare  
the 912,  
911T Targa,  
and the  
fuel-injected  
911E and 911S

● Face it. This is the Age of Protest. And when you want to register your protest against the impersonalism of dumb cars, burning your driver's license on the steps of the new GM building isn't your best bet. First of all, no one at GM is going to give much of a damn, and, once you've made the Grand Gesture, the only way to get back home is to take a subway—no matter how much you hate those dumb four door sedans with 6-cylinder engines and 2-speed automatics, eternally condemning yourself to the IRT isn't the plan.

It's much simpler and a hell of a lot more satisfying to buy a car that will do your protesting for you. And if there's any car that defies Detroit's sacred cows it's a Porsche. Small displacement, rear-engined, air-cooled, independently suspended, demanding and not prone to easily forgive errors, the Porsche is the antithesis of Detroit's engineering and marketing tenets. And, of course, there is the reputation thing. Porsches are arrogant. Only the fact that it has four wheels makes a Porsche a "car." It is a trip, it is an expression of understanding what the world is really like, it is a teutonic NASA mobile miniaturized for the highway. Porsche *knows*; Porsche *cares*; Porsche *lives*.

How else to react, then, when it came to our attention that the new Porsches featured such exotic hardware as fuel injection and hydro-pneumatic suspension, than to ablate, crawl into our testers' habits and—with pure heart—stand back and take a good long look at the entire Porsche model lineup to see if what has come to be known as the "Porsche Aura" (something like the Northern Lights) is justified or if it's just a glow that hides what otherwise might be a pumpkin coach.

Since we wanted to find out whether Porsche really has the answer to building *grand turismo* cars, or whether the reputation no longer matches the product, the best way to get the facts was obviously a C/D comparison test encompassing the full line of Porsches presently offered: a 4-cylinder 912 (102-hp), a 6-cylinder 911T (125-hp), a 6-cylinder fuel injected 911E (158-hp) and the top of the line, a 6-cylinder fuel injected 911S (190-hp). We also wanted to test both current body styles, and Porsche cooperated by making a 911T Targa available. In addition, both fuel in-

jected cars come equipped with Porsche's all-new hydro-pneumatic front suspension. One thing we did not get with any of the cars—and we were just as pleased not to have it—was the Sportomatic transmission. All four cars were equipped with Porsche's 5-speed manual transmission.

In tests of this kind *Car and Driver* has often gone to prominent racing test drivers to give us—and you—extra insight. For our Porsches we had the great good fortune to sign Mark Donohue. Donohue's success as a driver (two-time U.S.R.R.C. champion, championship Trans-Am sedan driver in 1968, and twice runner-up in the Can-Am series) tends to overshadow his engineering background. But Mark not only drives a wide variety of race cars, he is in charge of building and testing them for Roger Penske Racing.

Donohue's credentials made him a logical choice, but we received an unexpected bonus when Mark revealed that, even though he was surrounded by a swarm of Porsches every time he showed up for a Trans-Am, he could only remember driving two of the 912/11 series cars in the past five years—and both times they were just short drives on public roads in cars owned by friends. Obviously, we didn't have to worry about Donohue being prejudiced one way or the other, and with his engineering background there was zero chance that a mere reputation would influence his evaluation. Engineers, even engineers like Mark Donohue, demand proof, not personal opinions.

Due to New York's unpredictable winter weather, the decision was made to carry out the road course portion of the test in more favorable climes. And while it's not exactly in the Torrid Zone, Marlboro Raceway in Maryland was the choice. In this way we would be able to get experience driving the cars through New York's incredible traffic snarl, then evaluate the long-distance cruising capabilities on the trip down to Marlboro, and finally we could wring the four cars out at Marlboro—a tight, rough-surfaced, 1.8-mile course that definitely puts a premium on handling rather than foot-to-the-wood speed.

On the way down we also made a stop at Cecil Country Dragway where the weight of each car could be determined and the acceleration and braking tests could be performed with absolute accuracy.

The Porsches may have felt out of place on a drag strip, but steaming through traffic, running down the coast, a few dozen quarter miles and time in on a race course is a good way to look at a car inside and out. As matters turned out, we were even able to put the cars to the test through a wild variety of weather conditions. As we left New York the temperature was an ear-cracking 7° and all major highways were covered with a treacherous mixture of fresh snow, slush, salt and ice.

After slogging through this sorry mess, even the most adamant anti-Porsche Detroit Corporation man would be willing to admit that if

the cars came through the rest of the tests with the same marks he scored in this impromptu torture test, he might be won over.

It's obvious that someone who really cares about driver comfort designed the interiors. The seats are probably the most comfortable in the world and are equipped with an infinitely-adjustable buckrest that lets you tailor them to whatever position you prefer with a single lever. And, despite the cars' compact exterior dimensions, there is more room for driver and passenger than in most limousines. The only car in which there was room for improvement was the Targa, where the wider front wheel wells impinge upon foot space. The steering wheel (which was leather covered on the cars equipped with Porsche's Comfort Group; wider mag-style wheels, hydropneumatic suspension, extra instrumentation, etc.) is ideally positioned and features twin grips at the nine and three positions. Just behind these grips are a pair of multi-purpose control stalks: the left one controlling the headlight dimmer and flasher, and turn signals; the right stalk operating the 3-speed windshield wipers and washers. It's the most convenient and most effective means of dealing with secondary driver controls that we've ever encountered—the only problem is that the speedometer is obscured by your right hand. (Perhaps Porsche is trying to tell you something—the tach is positioned so that nothing can interrupt the driver's line of sight to its giant dial.)

The only major complaint was with the heaters. Air-cooled cars aren't exactly set up to pump extra calories into the driver's compartment and no one was able to decipher the elaborate system of vents and levers Porsche had devised to prevent passengers from becoming unwilling cyбернаughts (or whatever you call a freeze-dried corpse). Even though three cars were equipped with the optional gas-fueled heater in addition to the forced-air system that is standard, the complaint was universal. Either your feet were fried when you adjusted the fiendishly complicated system to warm the majority of the car, or 90% of your body was caked in ice if you adjusted it to a near reasonable level for the footwells.

It could have been a grueling trip but, surprisingly, none of the drivers in our 4-car caravan complained about anything but the heaters—and that's the essential thing about grand touring cars. It's not that they're so exotic, or that crap about one perfection-oriented gnome machining every oil gallery to .0002 tolerances, it's the very simple and very obvious fact that a Porsche is so relaxing to drive that has made the Porsche reputation. The only time your confidence is jarred is when a gust of wind cuts across your path.

Porsches, like most rear engine cars, are plagued with a wind stability problem that seems to defy reasonable solution. The ballast plate that used to be installed behind the front bumpers to promote understeer (and bring the car up to Group 2 homologated weight) has now given way to a pair of batteries located in both front fenders, and for 1969, the wheelbase has been lengthened 2.24



C/D sets out to discover if Porsche's reputation is justified, and Mark Donohue gives us the answer



inches (to 89.3) to improve weight distribution and stability. The engine location was not changed—instead the trailing arms were lengthened so now the halfshafts slant to the rear. But gusting winds still throw the cars off course and present an undeniable problem.

Things went pretty much as expected at Cecil County Dragway—a narrow quarter-mile strip billing itself as the Traction Capital of the East. With much clutch slipping and other non-recommended tricks, the 4-cylinder 912, (which was 110 to 190 lbs lighter than any of the 6-cylinder models) went through the eyes in 18.2 seconds at 77 mph.

At the other end of the scale was the 911S. Lightest of any of the 911 models, it had to be brought off the line at 5000 rpm so as to prevent bogging, and took 15.1 seconds to reach the end of the quarter with a terminal velocity of 91 mph. The other fuel injected model, the 911E, was bothered by the same low end response and registered a 15.3 @ 88 mph on its best run, while the carbureted 911T, with more low end torque, took 15.8 seconds with a terminal speed of 84 mph. An impressive group of times for cars whose forte definitely lies in fields other than straight-line acceleration.

The standard 80 to 0 mph brake tests turned out to be among the most uneventful we've run in years by virtue of Porsche's truly outstanding all-disc brake system (solid discs on the 912, vented on the others). With the exception of the Targa all the cars were capable of generating better than .9G stopping power with virtually no fade and excellent control. Even the Targa was not far off the mark with .89G.

The cars had shown themselves to be far above average in comfort, convenience and performance, but handling has always been the Porsche bag, and Donohue was determined to separate fact from fiction. "During the Trans-Am races, the Porsches will usually try to dive me by going deeper into a corner, but I really think that my Z/28 has as much overall cornering power. At least I'll be able to find out how they compare. We use Marlboro to sort out our Trans-Am cars because it's so tight and so rough that if a car handles well here it will handle well on just about any course."

Here in order of our preference and in order of what we think you should buy, are the four Porsches as tested by Donohue and the staff of C/D.

#### THE PORSCHE 911T TARGA

The 125 horsepower 911T turned out to be everybody's favorite, not only at Marlboro, where its relatively high torque at low rpm allowed it to turn the second fastest lap times, but in traffic where the torque once again made it the easiest car to drive.

A different chassis, required by the Targa's roadster style, adds only slightly to the weight of the car and proved to eliminate some of the handling problems Mark Donohue didn't like in the coupe versions. "It has trailing throttle oversteer (like the coupe), but it was much more predictable. Going through the banking you could hear constant tire squeal which

means it's committed and predictable and you can change it around and it stays neutral, whereas with the others it was either oversteer or understeer. It's more a Flexible Flyer... maybe I should cut all the tubes out of the roll cage on my Trans-Am car."

Donohue later added that he felt he could have gotten slightly better lap times had not the right front brake refused to seat itself properly, which had adversely affected the brake test results obtained the day before.

But, what really made the Targa a standout in a group of outstanding cars was the overall balance it exhibited. The two fuel injected models turned out to be more difficult to handle in traffic situations and were filled with mechanical noises not entirely out of keeping with their more highly stressed temperaments. But in a reversal of the expected, the roadster turned out to be much the quieter car—a factor much appreciated on long trips. In fact the only time the Targa seemed uncomfortable was when it was forced to cruise at low road speeds (20 to 25 mph) for relatively long distances. Then, no matter what the gear, the 911T engine continually bucks and lurches.

Although it is carbureted, the 911T shared an ailment common with the rest of the 6-cylinder models—which stems from smog emission adjustments. All the cars continually backfired through the exhaust system on trailing throttle. Porsche claims that no damage results from the AA/Fueler department, but the popping and cracking certainly is out of keeping with the otherwise excellent manners the 911T displayed in traffic.

Another usual complaint with roadster-style bodies that has been overcome is the lack of visibility when the top is in place. If anything the Targa—which was equipped with the nonremovable glass rear window rather than the more common zipout type—featured better visibility than in the coupes.

#### THE PORSCHE 911S

Donohue's first comment on the 911S pretty much said it all. "Although it's impossible to identify these cars in profile, as soon as you light the fires there's no doubt which one is the top of the line. That rasping, cracking exhaust note on the 911S really tells you right off it's not fooling around."

There's no doubt about it, the reincarnation of the 911S designation is a very serious car. Equipped with a Bosch fuel injection system it is rated at 190-hp at 6800 rpm. Differences between the 911S and the 911E include cylinder heads, which have larger ports and valves (3mm larger intakes and 1mm larger exhausts), a racier camshaft and a higher compression ratio (9.9 x 9.1). In addition, forged pistons are used for improved strength.

Porsche would like the world to believe that the primary reason it went to fuel injection was to comply with the exhaust emission standards, but no one is hiding the fact that there's more power available as well. The FF's heart is a 6-plunger distributor pump which supplies fuel to each intake port via separate pipes. The flow is intermittent and timed in the firing order sequence. A real plus with the new fuel delivery method is that



### PORSCHE 911T TARGA

List price as tested: \$7300.00

**Options on test car:** 5-speed transmission, \$30.00; comfort group, \$20.00; antenna, \$20.00; Blaupunkt radio, \$160.00.

#### ENGINE

Bore x stroke..... 3.15 x 2.60 in  
 Displacement..... 121.5 cu in  
 Compression ratio..... 8.6 to one  
 Carburetion..... 2 x 3 bbl Weber 40 IOT P3C  
 Power (SAE)..... 125 bhp @ 5800 rpm  
 Torque (SAE)..... 131 lbs/ft @ 4200 rpm

#### DRIVE TRAIN

Final drive ratio..... 4.43 to one

#### DIMENSIONS AND CAPACITIES

Wheelbase..... F: 53.8 in, R: 89.3 in  
 Track..... F: 54.1 in, R: 53.4 in  
 Length..... 163.9 in  
 Width..... 63.4 in  
 Height..... 52.0 in  
 Curb weight..... 2370 lbs  
 Weight distribution, F/R..... 41.0/59.0%  
 Fuel capacity..... 16.4 gal  
 Oil capacity..... 9.5 qts

#### SUSPENSION

F: Ind., self-leveling MacPherson strut  
 R: Ind., trailing arms, torsion bars

#### STEERING

Type..... Rack and Pinion  
 Turns lock-to-lock..... 3.1  
 Turning circle..... 35.1 ft

#### BRAKES

F..... 8.98-in vented disc  
 R..... 9.60-in vented disc

#### WHEELS AND TIRES

Wheel size..... 14 x 5.5 in forged alloy  
 Tire make and size..... Michelin XAS, 185 HR 14  
 Test inflation pressures..... F: 25 psi, R: 29 psi

#### PERFORMANCE

	Seconds
Zero to 40 mph.....	3.6
60 mph.....	7.8
80 mph.....	14.3
100 mph.....	23.4
Standing 1/4-mile.....	15.8 sec @ 84 mph
80-0 mph panic stop.....	240 ft (0.89 G)



### PORSCHE 911S COUPE

List price as tested: \$8370.00

**Options on test car:** antenna, \$20.00; Blaupunkt radio, \$160.00; self-leveling suspension, \$120.00; gasoline heater, \$175.00

#### ENGINE

Bore x stroke..... 3.15 x 2.60 in  
 Displacement..... 121.5 cu in  
 Compression ratio..... 9.9 to one  
 Carburetion..... Bosch fuel injection  
 Power (SAE)..... 150 bhp @ 5800 rpm  
 Torque (SAE)..... 152 lbs/ft @ 5500 rpm

#### DRIVE TRAIN

Final drive ratio..... 4.43 to one

#### DIMENSIONS AND CAPACITIES

Wheelbase..... F: 54.1 in, R: 89.3 in  
 Track..... F: 54.1 in, R: 53.4 in  
 Length..... 163.9 in  
 Width..... 63.4 in  
 Height..... 52.0 in  
 Curb weight..... 2330 lbs  
 Weight distribution, F/R..... 41.5/58.5%  
 Fuel capacity..... 16.4 gal  
 Oil capacity..... 10.6 qts

#### SUSPENSION

F: Ind., self-leveling MacPherson strut  
 R: Ind., trailing arms, torsion bars

#### STEERING

Type..... Rack and Pinion  
 Turns lock-to-lock..... 3.1  
 Turning circle..... 35.1 ft

#### BRAKES

F..... 8.98-in vented disc  
 R..... 9.60-in vented disc

#### WHEELS AND TIRES

Wheel size..... 15 x 6.0 in forged alloy  
 Tire make and size..... Michelin X 185/70 VR-15  
 Test inflation pressures..... F: 32 psi, R: 35 psi

#### PERFORMANCE

	Seconds
Zero to 40 mph.....	3.3
60 mph.....	6.5
80 mph.....	11.6
100 mph.....	18.8
Standing 1/4-mile.....	15.1 sec @ 91 mph
80-0 mph panic stop.....	230 ft (0.93 G)



### PORSCHE 911E COUPE

List price as tested: \$7736.00

**Options on test car:** Chrome flap light, \$14.00; gasoline heater, \$175.00; tinted glass, \$68.00; electric heated rear window, \$40.00; antenna, \$20.00; Blaupunkt radio, \$160.00; alloy 15 x 6 wheels, \$64.00.

#### ENGINE

Bore x stroke..... 3.15 x 2.60 in  
 Displacement..... 121.5 cu in  
 Compression ratio..... 9.1 to one  
 Carburetion..... Bosch fuel injection  
 Power (SAE)..... 158 bhp @ 6500 rpm  
 Torque (SAE)..... 145 lbs/ft @ 4500 rpm

#### DRIVE TRAIN

Final drive ratio..... 4.43 to one

#### DIMENSIONS AND CAPACITIES

Wheelbase..... 89.3 in  
 Track..... F: 54.1 in, R: 53.4 in  
 Length..... 163.9 in  
 Width..... 63.4 in  
 Height..... 52.0 in  
 Curb weight..... 2410 lbs  
 Weight distribution, F/R..... 42.3/57.7%  
 Fuel capacity..... 16.4 gal  
 Oil capacity..... 9.5 qts

#### SUSPENSION

F: Ind., self-leveling MacPherson strut  
 R: Ind., trailing arms, torsion bars

#### STEERING

Type..... Rack and pinion  
 Turns lock-to-lock..... 3.1  
 Turning circle..... 35.1 ft

#### BRAKES

F..... 8.98-in vented disc  
 R..... 9.60-in vented disc

#### WHEELS AND TIRES

Wheel size..... 15 x 6.0 in forged alloy  
 Tire make and size..... Dunlop SP 185/70 VR 15  
 Test inflation pressures..... F: 32 psi, R: 35 psi

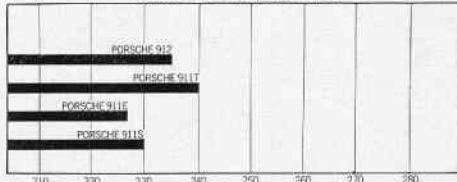
#### PERFORMANCE

	Seconds
Zero to 40 mph.....	3.4
60 mph.....	7.0
80 mph.....	12.4
100 mph.....	20.3
Standing 1/4-mile.....	15.3 sec @ 88.0 mph
80-0 mph panic stop.....	227 ft (0.94 G)

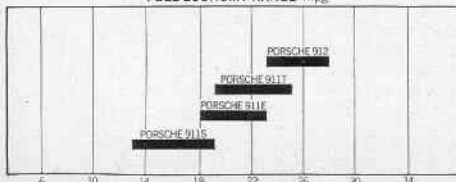
ACCELERATION standing 1/4 mile, seconds



BRAKING 80-0 mph panic stop, feet



FUEL ECONOMY RANGE mpg



PRICE AS TESTED dollars x 1000







## PORSCHE 912 COUPE

List price as tested: \$5748.00

Options on test car: 5-speed transmission, \$80.00; antenna, \$30.00; Blaupunkt radio, \$150.00; gas heater, \$175.00; bumper guards, \$18.00; chrome wheels, \$100.00.

### ENGINE

Bore x stroke ..... 3.25 x 2.91 in  
 Displacement ..... 96.5 cu in  
 Compression ratio ..... 9.3 to one  
 Carburetion ..... 2 x 2 bbl Solex 40 P1-4  
 Power (SAE) ..... 102 bhp @ 5800 rpm  
 Torque (SAE) ..... 120 lbs/ft @ 3500 rpm

### DRIVE TRAIN

Final drive ratio ..... 4.43 to one

### DIMENSIONS AND CAPACITIES

Wheelbase ..... 89.3 in  
 Track ..... F: 53.8 in, R: 53.0 in  
 Length ..... 153.9 in  
 Width ..... 53.4 in  
 Height ..... 52.0 in  
 Curb weight ..... 2220 lbs  
 Weight distribution, F/R ..... 45.5/54.5%  
 Fuel capacity ..... 16.4 gal  
 Oil capacity ..... 4.2 qts

### SUSPENSION

F: Ind., MacPherson strut, torsion bars  
 R: Ind., trailing arms, torsion bars

### STEERING

Type ..... Rack and Pinion  
 Turns lock-to-lock ..... 3.1  
 Turning circle ..... 35.1 ft

### BRAKES

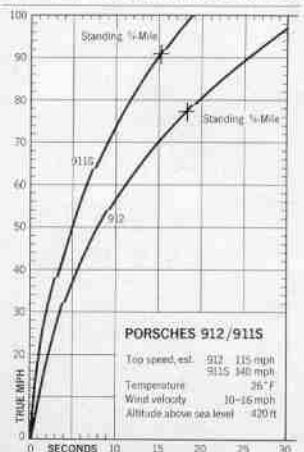
F: ..... 9.25-in solid disc  
 R: ..... 9.60-in solid disc

### WHEELS AND TIRES

Wheel size ..... 15 x 5.5 in chrome plated steel  
 Tire make and size ..... Semperit 165 HR 15 ST  
 Test inflation pressures ..... F: 25 psi, R: 25 psi

### PERFORMANCE

Zero to	Seconds
40 mph	5.5
60 mph	11.4
80 mph	19.9
100 mph	32.5
Standing 1/4-mile	18.2 sec @ 77 mph
80-0 mph panic stop	235 ft (0.91 G)



It automatically adjusts the mixture for variations in temperature and altitude, and even for starting.

Despite all this good stuff, Donohue wasn't entirely happy with the engine's performance. "It's really poorly suited for acceleration which is a shame. The engine is very peaky, working vigorously from about 5800 to 7200 rpm and being far less effective than the 911E below those speeds. Since acceleration is important, whether you're trying to get away from a traffic light, pass or just really make it through that curvy road, I would consider sacrificing the 140-mph top speed—which can't be used in the U.S. anyway—with a higher numerical axle ratio and, maybe, a closer ratio transmission."

The 911S was also equipped with Porsche's unique hydro pneumatic suspension, a rather strange combination considering that the new suspension is designed more for comfort more than ultimate handling. The reason for this is that our test car was one of the first 10 made, and the initial batch of 911Ss were primarily built as technical service school demonstrators—therefore, they are equipped with all of the new 1969 gear, including the suspension.

The hydro pneumatic front suspension, made by BOGE, fits entirely within the MacPherson strut and is completely self-contained, requiring no external pumps or pressure tanks. And, since the entire suspension function is performed by a piston acting on a high pressure gas chamber, no springs or anti-sway bars are used. The car's height is controlled by the position of the piston in its cylinder. Regardless of the load, the piston can be moved to a predetermined point by adjusting the pressure in the chamber. For instance, when a load is placed in the trunk, the front of the car goes down. After you start to drive, an internal pump—activated by suspension motion—pumps gas from a reservoir to the piston chamber and returns the front of the car to its proper height. Obviously the bumper road, the sooner the suspension reaches the proper height—but only on a glassy smooth surface should it take more than a quarter of a mile.

When you unload the car, it naturally rises, but as it does the piston uncovers a port and the excess pressure bleeds off until the car settles down far enough to cover the port. Despite all this apparent exotic, the net result is that the system works so well that, aside from a marginally smoother ride, you don't even notice it's there. Still, Porsche feels that it doesn't allow the handling to be as finely tuned and therefore will be building most 911Ss with the normal torsion bars and both front and rear sway bars.

After cracking off a series of 1:45.00 laps, Mark Donohue was most impressed with the balance of the suspension. "It's really amazing how the engineers have been able to design a car that is quite comfortable on the street and still can handle on a rough track like this. I've never been so well treated, physically, in a race car. I'd really like to take this car apart and see exactly how they've done it. I suspect that the secret might lie in shock absorber valving."

However, in regard to overall performance Mark had some reservations. "Frankly, I was a bit disappointed—mostly as a result of the engine and gearing. The car isn't much faster than the Targa because of the need to keep the engine up in the top range, but on a course like Bridgehampton, where speed counts for a great deal more, the difference would be more obvious."

## THE PORSCHE 911E

The 158-horsepower 911E, which is also equipped with Bosch fuel injection, is ostensibly just a tamer version of the S—and incidentally costs \$700 less. It was also equipped with the hydro pneumatic suspension but its lap times were a disappointing 1:47.5. This was largely accounted for by an idiosyncrasy in the rear end. Donohue's comparison between the two fuel injected models definitely favored the S. "Both cars were a bit tricky to corner with, as it was fairly difficult to predetermine what attitude the car would adopt until you were well committed into the turn. The 911E had an exaggerated problem because of excessive compliance in one of the rear suspension bushings, coupled with very sudden tires. In general, there's a lot of initial understeer, but the E, because of that one weak bushing—which undoubtedly is unique to this particular car as none of the others had the same problem—would very suddenly and very unpredictably make the transition to oversteer. It was a bit unnerving."

And while Donohue was generally impressed with the riding and handling characteristics of all the Porsches, there was one common fault that he felt should be corrected. "When you're going deep into a corner, you want to get rid of the initial understeer with the brakes, but as soon as you lift off the throttle all the cars made the transition into oversteer. While this isn't all bad on a race course, I'd like to see it corrected for over-the-road driving. Trailing throttle oversteer definitely isn't what you want when you're coming around a curve and suddenly find someone loafing along in front of you."

## THE PORSCHE 912

Inevitably the 4-cylinder 912 engine (now rated a 102-hp) is due to be phased out of the Porsche line-up. For the time being, however, its \$5200 list price—while not exactly putting it in the econo-car class—continues to lure new buyers into the Porsche market and no one is saying when the cutoff date will be. Instrumentation on the 912 is less informative than on the 911 series (the oil level and oil pressure gauges that are standard on the 911s are missing, and the oil temperature gauge is simply marked off in a "safe operating zone" rather than calibrated in 20° increments). In addition, if you want wide wheels and tires they must be specially ordered.

Our 912 was the only car equipped with Porsche's standard torsion bar front suspension. Its lap times were the slowest simply because the engine lacked the punch of the 6-cylinder 911s. After several laps Mark Donohue said, "I'm quite surprised that (Continued on page 66)

## THE 1969 PORSCHES

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there isn't more of a difference between the ride and handling characteristics. The 912's ride is slightly less luxurious feeling than the hydropneumatic suspension, but you really have to be looking for the difference. Handling exhibits all the same basic characteristics except the narrower wheels obviously don't give you quite as much traction. One thing that is really impressive on all the cars is the fact that their low speed characteristics are identical to what's going to happen at high speeds. With most cars, particularly front engine cars, there's a world of difference between how a car will act going around a corner at 40 mph and what will happen in the same corner at 85 or 90 mph. It gives you a terrific sense of confidence and makes it

minimum of mechanical loss through the drive-train and, being air-cooled and light the combination results in an impressive vehicle."

"And you've got to admire them for getting so much out of a relatively small engine, even the 912—although I was most impressed with the handling. The cars have remarkable suspension systems."

That's what an expert had to say, and we agree, but we're also sure that if Porsche built ill-handling stones, the exquisite, almost watchmaker like, craftsmanship and attention to creature comfort details would sell most of the limited production run. Small things like inside gas cap releases, door locks positioned where you can get at them without being a contortionist, extra storage com-



much easier to learn the car."

Porsche's radical design isolates them from the mainstream of the automotive world and even the simple facts that the cars cost so much and are in relatively short supply has contributed to a mystique that few other vehicles in history have been able to conjure. We set out on this one-marque comparison test to see if Porsche reputation was justified, and even cloaking his enthusiasm in the impersonal language of an engineer, Mark Donohue echoed the enthusiasm and opinions of the entire staff in summing up:

"There's no doubt that Porsche has a very successful grand touring car and the design philosophy is terrific. I'd really like to see other people try it. Just the rear engine alone lends to building a better car... you have a low center of gravity, good visibility, a

partments built into the arm rests, and interior lights that are mounted on butterfly switches so all you have to do is tap the lens to get them operating—it's the way you would like to see things done. It seems as if every switch and handle has been positioned without regard to cost or ease of assembly but because that's where it *should* be. It's a very personal, very customized-tailored feeling that probably is accountable for the fanatical devotion exhibited by Porsche owners. After all, it is easy enough for anyone to bad-mouth a Robert Hall suit, but a person is much more committed if he complains about a Dunhill creation. Still, that doesn't prevent you from liking one Dunhill suit better than another, and the Targa, because of its lack of temperament and its outstanding comfort, was C/D's and Mark Donohue's favorite. ●