

CAR and DRIVER

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Testing the 2.7-liter Porsches
911 · 911S · Carrera
...with some startling comments from
NASCAR champion Bobby Allison



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CAR AND DRIVER
AND BOBBY ALLISON TEST
THE 1974 PORSCHEs

Comparing the Porsche 911,
911S Targa and Carrera



• The tachometer needle is closing in on the fourth gear redline. The speedometer indicates 105 mph. Bobby Allison is feeling the Porsche 911 into the wide, banked Turn One of Pocono's short road course. He has driven this section of the tri-oval dozens, maybe tens of dozens, of times before, always in a stock car . . . and always in the other direction. But that doesn't matter. Now he is turning right instead of left.

"You could really hang up your spare parts in this corner if something went wrong."

At this speed, the Porsche is toeing an awkward threshold. Aerodynamic forces have lifted its front enough to make the steering light and vague, yet very twitchy. The rear has lifted too and the tires are light enough to want to break out into a drift.

"I can feel it trying to hang but it can't quite do it."

Each time the tail comes loose, Allison catches it with a microscopic correction of the steering and an adjustment of his foot on the gas. But almost as soon as it's caught, the rear comes unstuck again. And each time it does, the on-rushing boiler-plate wall seems to click into even sharper focus.

"It's telling me to expect something bad, it doesn't say *how* bad. It's not really a strain at this speed . . . we might even be able to run right to the mat in a few laps . . . but I just know better than to crowd it too soon. Porsches are quite a bit different from anything else I've driven . . . except maybe a Volkswagen and I've only driven VWs a minimum number of times."

Bobby Allison, successful driver and equally successful race car builder, feels no reverence toward the name Porsche. Which makes him the perfect driver to test the 1974 line-up of 2.7-liter Porsches. It's easy to find someone who has raced Porsches successfully, someone with a factory deal . . . or someone trying to carve out a factory deal . . . who will be more than happy to help out on a test such as this. And you'll get a glowing report. But Allison is non-aligned. With him, the chips fall where they may. And he points out exactly where that might be in a precise, deep, gentle draw that does not leave room for misinterpretation. To be sure, Bobby Allison is a stock car driver, and, with more than forty NASCAR wins, an exceedingly competent one. But he is much too diverse to be categorized in that narrow pigeon hole. He has also won on road courses—Riverside this past summer to name a recent one—and driven open-wheel-

ers for Roger Penske at Indy. He has even raced Porsches, at the Lime Rock Trans-Am last season and most recently as one of the select field of 12 at the International Race of Champions at Riverside just before this test. In fact, he even bought a new 911T to drive on the street in preparation for the IROC.

Like many of today's best drivers, Allison turns out to be more than just a driver. He is also a car builder. His shop in Hueytown, Alabama turns out parts and completed stock cars, as many as a hundred a year, for serious racers. So Bobby Allison knows about automobiles

rear side stripes, the upturned rear deck spoiler (a "mandatory option" at \$285), slightly flared rear fenders and wider (seven inches compared to six in front) rear wheels mounted with appropriately fatter tires.

This is in bold contrast to the European Carrera, known as the RS, which is strictly a stripped homologation special. It is very light—just under 2000 lbs. dry—with a high compression engine and is strictly verboten on public roads here because of smog and safety laws. Upon special order, the factory will convert the RS into the RSR, which is a pure

For 1974, the engines come in only two stages of tune. The regular 911 has what is basically the old "T" engine, but with 300cc additional displacement. It has an 8.0-to-1 compression ratio and is rated at 143 hp (net) at 5700 rpm. The S and the Carrera share a similarly enlarged "S" engine. It has a higher (8.5-to-1) compression ratio, larger intake ports and a cam with more lift and duration on the intake lobes. It is rated at 167 hp (net) at 5800 rpm. Though, in comparison to the old T and S, quarter-mile acceleration of the new models is virtually unchanged, the new engines are clearly less fussy to drive. The increased displacement and less overlap in the cams (for emission control) has made them both highly tractable. The S still has a noticeable rise in the torque curve as you approach 3500 rpm, but even it will slug through traffic without trauma. In past models, we felt the output curve of the S was too peaky for U.S. driving conditions and, in fact, the E was quicker at speeds below 100 mph. But the new S is at least as flexible as the old E and we no longer have reservations about it. To compliment the two larger engines, fourth and fifth gear ratios in the 5-speed transmission have been slightly changed—lengthened for quieter cruising and better fuel economy.

The new 911s have undergone other changes to make them more compatible with Uncle Sam's requirements. The new bumpers with wide aluminum face bars add 5.0 inches to overall length. For the American market they are mounted on hydraulic shock absorbers (another "mandatory" option at \$135) so that they will be self-restoring after a low-speed crash. Surprisingly, this has been done without adding much weight. The new models are only about 50 lbs. heavier than their predecessors. And at least half of that can be charged off to the enlarged fuel tank (21 gallons, up from 16.4).

There are other changes beneath the surface and some of them do not seem like progress. To help weight distribution, Porsche has for years fitted the 911 with two small batteries, one on each side just forward of the front wheels. This year, there is just one, a large one, located at the left front. In 1972 the dry sump oil tank was moved forward of the right rear wheel, also to improve weight distribution. A year later it was moved back behind the axle into the engine compartment. The front anti-sway bar has also been redesigned for 1974 to a less costly, but also less efficient, arrangement.



from both sides of the steering wheel. With credentials such as these, Allison's assignment for *Car and Driver* was to probe the performance and personality of Porsche's newest collection of road cars as represented by three models: a 911, a 911S Targa and a Carrera, \$42,940 worth of rear-engine machinery.

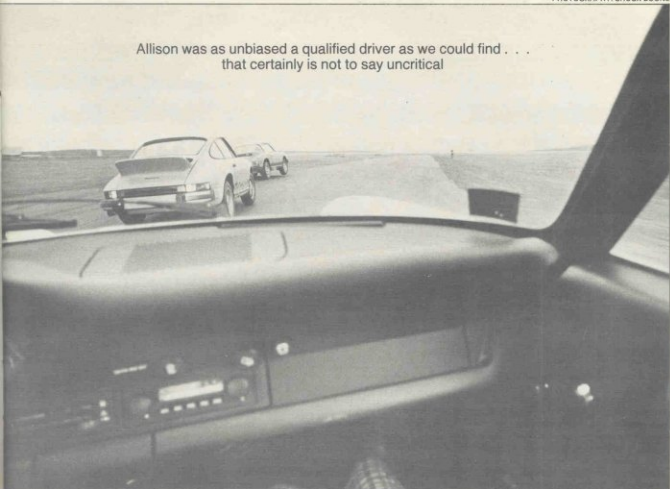
Porsche's model line-up has undergone a substantial overhaul. The T and E models are gone. At the bottom of the new heap is the no-suffix 911 which lists for \$9950 POE East Coast, plus everything. Up from there is the 911S. And that, in turn, is topped by the Carrera at \$13,575, at that price as naked as the Venus de Milo.

There is bound to be confusion over the Carrera. You're probably thinking—or at least hoping—that it has much in common with the Carrera RSRs that have been mowing down the opposition around the world in GT racing and that made up the field for the IROC. It doesn't. It's a 911S overlaid with a few of the RSR's accoutrements: Car-

acing car, the kind that ran in the IROC. These cars have 3.0-liter engines that produce 330 hp (DIN) at 8000 rpm, fiberglass bumpers and widely flared fenders, special suspensions, brakes from the 917, wide wheels (9.0-inch in front, 12.0-inch in back) and all the racing equipment you need, right down to a 6-point seat belt, roll bar and on-board fire extinguisher. The RS and RSR have about the same relationship to the U.S.-market Carrera that Bobby Allison's number 12 Chevelle has to the one you'll find covered with shipping wax in your local Chevy dealer's lot.

All of the new Porsches have 2.7-liter 6-cylinder engines, big-bore versions of the 2.4-liter powerplant introduced in 1972. They also have a new fuel injection system from Bosch known as the K-Jetronic, a continuous flow type with nozzles directed at the underside of the intake valves. It determines fuel flow by measuring the quantity of intake air, the same principle as the original Rochester device introduced on 1957 Corvettes.

Allison was as unbiased a qualified driver as we could find . . .
that certainly is not to say uncritical





All of these moves give the appearance of being cost reductions . . . except that you'd never know it by the price, which has gone up about \$2500 in two years with the blame being laid on fluctuations in the international money market and inflation in Germany. Perhaps some of the changes in weight distribution are made up for by the new, cast light-alloy semi-trailing arms in the rear that replace the previous steel sus-

pension components. On the other hand, perhaps small differences in weight distribution make very little difference. *That's* why we went to Pocono. To find out. And that's why we summoned Bobby Allison, as a non-aligned driver, to give us an impartial view.

It is a tribute to Porsche that we find it necessary to test its models on the race track. It all comes down to the fact that the Porsche 911 is one of the very few

truly high performance street cars in production today. Because of its racing successes, its capabilities are legend. But reputations cut no ice in road tests. What the car actually does is what counts. And at Pocono we explored the extremes of three new 911s.

The 911's uniqueness looms up as soon as you fit yourself into the seat. Allison discussed the difficulties he found in adapting: "Compared to the pedals,



the steering wheel is way too far away. The height and angle would be fine if it were about two inches closer. All the stock car guys at Riverside complained about that. Petty, who is used to driving right up on top of the wheel, really had a problem—when he got somewhere close to what his arms wanted he had to work the pedals with his knees.

"The pedal position and the shifter are all so very strange. I never missed the

clutch at Riverside, but I did originally in that first Porsche I drove at Lime Rock . . . and even in my street car. It's over so far to the right compared to a normal car I had to work to get used to it.

"I've found the shifter itself to be a problem in the car I bought as well as the race cars. It's very mushy in feeling. At Lime Rock I only got a couple laps of practice before the race and had to start at the rear of the grid. In the race I had

come from 33rd to tenth in like ten laps. Then there was a spin out. In order to miss a spinning car, I tried to make a quick shift while I was in a turn. Instead of going from fourth to third, I went from fourth to first. It blew the engine up. That showed me right there that I'd better find out where the gears were."

With that as motivation, Allison bought his own street Porsche a few months later when he committed to run the IROC.



Porsche 911

Vehicle: Rear engine, rear-wheel-drive, 2-passenger coupe

Price as tested: \$12,225

(Manufacturer's suggested retail price, including all options listed below, dealer preparation and delivery charges; does not include state and local taxes, license or freight charges)

Options on test car: Base Porsche 911, \$9950; 5-speed transmission, \$250; cast aluminum wheels, \$600; Blstein Shock absorbers, \$165; rear anti-sway bar, \$75; instrument, \$80; AM/FM radio, \$330; tinted glass, \$190; special paint, \$420; recoverable bumpers, \$135; intermittent wipers, \$25.

ENGINE

Type: Flat 6, air-cooled, magnesium block and aluminum heads, 4 main bearings
Bore x stroke 3.54x2.77 in, 90.0x70.4mm
Displacement 161.9 cu in, 2653 cc
Compression ratio 8.0 to one
Carburetion Bosch mechanical fuel injection
Valve gear Chain-driven single overhead cam
Power (SAE net) 143 bhp @ 5700 rpm
Torque (SAE net) 168 lb-ft @ 3800 rpm
Specific power output 0.88 bhp/cu in, 53.9 bhp/liter
Max. recommended engine speed 6300 rpm

DRIVE TRAIN

Transmission 5-speed, all-synchro
Final drive ratio 4.43 to one
Gear Ratio Mph/1000 rpm Max. test speed
I 3.18 5.3 33 mph (6300 rpm)
II 1.83 9.1 58 mph (6300 rpm)
III 1.26 13.3 84 mph (6300 rpm)
IV 0.93 18.0 113 mph (6300 rpm)
V 0.72 23.2 125 mph (6400 rpm)

DIMENSIONS AND CAPACITIES

Wheelbase 89.4 in
Track, F/R 54.0/53.3 in
Length 168.9 in
Width 63.4 in
Height 52.0 in
Ground clearance 5.9 in
Curb weight 2470 lb
Weight distribution, F/R 42.8/57.2%
Battery capacity 12 volts, 66 amp-hr
Alternator capacity 770 watts
Fuel capacity 21.1 gal
Oil capacity 12 qts

SUSPENSION

F: Ind., MacPherson strut, torsion bar, anti-sway bar

R: Ind., semi-trailing arm, torsion bar, anti-sway bar

STEERING

Type rack and pinion
Turns lock-to-lock 3.1
Turning circle curb-to-curb 35.2 ft

BRAKES

F: 11.1-in vented disc
R: 11.4-in vented disc

WHEELS AND TIRES

Wheel size 6.0x15-in
Wheel type forged magnesium, 5-bolt
Tire make and size Michelin XWX, 185/70 VR-15
Tire type radial, tube type
Test inflation pressures, F/R 29/34 psi
Tire load rating 1265 lbs per tire @ 36 psi

PERFORMANCE

Zero to	Seconds
30 mph	1.9
40 mph	3.2
50 mph	4.4
60 mph	6.1
70 mph	7.9
80 mph	10.3
90 mph	13.8
100 mph	18.0
Standing 1/4-mile	14.7 sec @ 92.1 mph
Top speed (observed)	125 mph
70-0 mph	18.7 in (0.88 G)
Fuel mileage	17.0-20.0 mpg on regular fuel
Cruising range	360-420 mi



Porsche 911S Targa

Vehicle: Rear engine, rear-wheel-drive, 2-passenger coupe

Price as tested: \$15,670

(Manufacturer's suggested retail price, including all options listed below, dealer preparation and delivery charges; does not include state and local taxes, license or freight charges)

Options on test car: Base Porsche 911S Targa, \$12,725; 5-speed transmission, \$250; air conditioning, \$1125; leather upholstery, \$310; metallic paint, \$420; AM/FM radio, \$330; raised steering wheel, \$40; folding roof, \$235; fog lights, \$90; tinted glass, \$120; intermittent wipers, \$25.

ENGINE

Type: Flat 6, air-cooled, magnesium block and aluminum heads, 4 main bearings
Bore x stroke 3.54x2.77 in, 90.0x70.4mm
Displacement 161.9 cu in, 2653 cc
Compression ratio 8.5 to one
Carburetion Bosch mechanical fuel injection
Valve gear Chain-driven single overhead cam
Power (SAE net) 167 bhp @ 5800 rpm
Torque (SAE net) 168 lb-ft @ 4000 rpm
Specific power output 1.03 bhp/cu in, 62.9 bhp/liter
Max. recommended engine speed 6300 rpm

DRIVE TRAIN

Transmission 5-speed, 911-synchro
Final drive ratio 4.43 to one
Gear Ratio Mph/1000 rpm Max. test speed
I 3.18 5.3 33 mph (6300 rpm)
II 1.83 9.1 58 mph (6300 rpm)
III 1.26 13.3 84 mph (6300 rpm)
IV 0.93 18.0 113 mph (6300 rpm)
V 0.72 23.2 125 mph (6400 rpm)

DIMENSIONS AND CAPACITIES

Wheelbase 89.4 in
Track, F/R 54.0/53.3 in
Length 168.9 in
Width 63.4 in
Height 52.0 in
Ground clearance 5.9 in
Curb weight 2605 lbs
Weight distribution, F/R 42.4/57.6%
Battery capacity 12 volts, 66 amp-hr
Alternator capacity 770 watts
Fuel capacity 21.1 gal
Oil capacity 12 qts

SUSPENSION

F: Ind., MacPherson strut, torsion bar, anti-sway bar

R: Ind., semi-trailing arm, torsion bar

STEERING

Type rack and pinion
Turns lock-to-lock 3.1
Turning circle curb-to-curb 35.2 ft

BRAKES

F: 11.1-in vented disc
R: 11.4-in vented disc

WHEELS AND TIRES

Wheel size 6.0x15-in
Wheel type cast aluminum, 5-bolt
Tire make and size Dunlop SP Sport Super, 185/70 VR-15
Tire type radial, tube type
Test inflation pressures, F/R 29/34 psi
Tire load rating 1265 lbs per tire @ 36 psi

PERFORMANCE

Zero to	Seconds
30 mph	1.8
40 mph	3.1
50 mph	4.3
60 mph	5.9
70 mph	7.7
80 mph	10.0
90 mph	12.9
100 mph	16.9
Standing 1/4-mile	14.6 sec @ 94.1 mph
Top speed (observed)	129 mph
70-0 mph	18.6 in (0.88 G)
Fuel mileage	16.0-21.0 mpg on regular fuel
Cruising range	340-440 mi



Porsche 911S Carrera

Vehicle: Rear engine, rear-wheel-drive, 2-passenger coupe

Price as tested: \$15,045

(Manufacturer's suggested retail price, including all options listed below, dealer preparation and delivery charges; does not include state and local taxes, license or freight charges)

Options on test car: Base Porsche 911S Carrera, \$13,575; 5-speed transmission, \$250; rear spoiler, \$285; Blstein shock absorbers, \$165; recoverable bumpers, \$135; AM/FM radio, \$330; fog lights, \$90; tinted glass, \$190; intermittent wipers, \$25

ENGINE

Type: Flat 6, air-cooled, magnesium block and aluminum heads, 4 main bearings
Bore x stroke 3.54x2.77 in, 90.0x70.4mm
Displacement 161.9 cu in, 2653 cc
Compression ratio 8.5 to one
Carburetion Bosch mechanical fuel injection
Valve gear Chain-driven single overhead cam
Power (SAE net) 167 bhp @ 5800 rpm
Torque (SAE net) 168 lb-ft @ 4000 rpm
Specific power output 1.03 bhp/cu in, 62.9 bhp/liter
Max. recommended engine speed 6300 rpm

DRIVE TRAIN

Transmission 5-speed, all-synchro
Final drive ratio 4.43 to one
Gear Ratio Mph/1000 rpm Max. test speed
I 3.18 5.1 32 mph (6300 rpm)
II 1.83 8.9 56 mph (6300 rpm)
III 1.26 13.0 82 mph (6300 rpm)
IV 0.93 17.6 112 mph (6300 rpm)
V 0.72 22.7 123 mph (6300 rpm)

DIMENSIONS AND CAPACITIES

Wheelbase 89.4 in
Track, F/R 54.0/54.9 in
Length 168.9 in
Width 65.0 in
Height 52.0 in
Ground clearance 5.9 in
Curb weight 2480 lbs
Weight distribution, F/R 41.9/58.1%
Battery capacity 12 volts, 66 amp-hr
Alternator capacity 770 watts
Fuel capacity 21.1 gal
Oil capacity 12 qts

SUSPENSION

F: Ind., MacPherson strut, torsion bar, anti-sway bar

R: Ind., semi-trailing arm, torsion bar, anti-sway bar

STEERING

Type rack and pinion
Turns lock-to-lock 3.1
Turning circle curb-to-curb 35.2 ft

BRAKES

F: 11.1-in vented disc
R: 11.4-in vented disc

WHEELS AND TIRES

Wheel size F: 6.0x15-in; R: 7.0x15-in
Wheel type forged magnesium, 5-bolt
Tire make and size F: Dunlop 185/70 VR-15; R: 215/60 VR-15
Tire type radial, tube type
Test inflation pressures, F/R 29/29 psi
Tire load rating F: 1265 lbs @ 36 psi; R: 1410 @ 36 psi

PERFORMANCE

Zero to	Seconds
30 mph	1.7
40 mph	3.0
50 mph	4.2
60 mph	5.8
70 mph	7.5
80 mph	9.8
90 mph	12.7
100 mph	16.0
Standing 1/4-mile	14.4 sec @ 95.4 mph
Top speed (at redline)	143 mph
70-0 mph	18.7 in (0.88 G)
Fuel mileage	16.0-19.0 mpg on regular fuel
Cruising range	300-400 mi

But he still doesn't find shifting easy.

"On a road course, with any kind of cornering pressure on the car—which transfers into your body also—you can't find the detent for the gear you want."

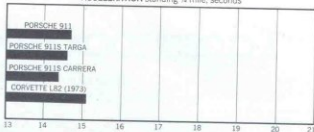
Allison is not the only one to have this problem. At Riverside, Petty, Johncock, McClusky and even Denny Hulme were having trouble finding the gear they wanted when they wanted it. And at Pocono we discovered that the problem is not confined to the RSR. The stock cars work well enough on the street where, even though the linkage might be somewhat imprecise, you'll probably never miss a gear. But on the track, sometimes you move the lever and you can't find anything. Or worse yet, you get the wrong gear. And while it's possible that the driver is hurrying the operation under those circumstances, driver error is only partially responsible. We strongly suspect that certain combinations of cornering, braking and acceleration loads on the car, in conjunction with high engine speeds, produce distortions somewhere in the long shift mechanism that prevent it from working properly. Allison agrees and considers this to be one of the major problem areas in the car.

When it comes to handling, Allison approaches the Porsches from years of professional experience and quickly sights in on their uniqueness. "Compared to American cars that have a good, positive front end feel and a back end that just trails along meekly, the Porsches are very much more aggressive. They are very quick reacting, almost squirrely, in what would be a normal maneuver in any other car. I've driven my car pretty fast on interstate highways and, when you get it up to speed, it's pretty comfortable. But you better not move the steering wheel very much. If you want to change lanes at 70 mph, you learn quickly to do it very carefully. The cars are heavy in the rear and very light in front—which makes the steering light. It's a feeling you really have to get used to."

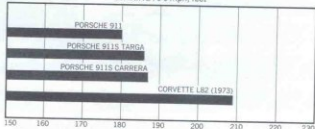
Allison's point is that, unlike an American car, the Porsche's back end doesn't trail meekly behind the front. And it's this feeling that convinces so many street drivers that they are in the world's best handling car. At low speeds, city traffic and brisk marches through winding lanes, a 911 is supremely agile. The steering is quick and the car instantly changes direction with only the lightest touch. It feels for all the world like a civilized formula racer and gives great pleasure. But the Porsche's personality changes drastically as you approach its

When it comes to handling, Bobby Allison approaches the Porsches from years of professional experience and quickly sights in on their unique character

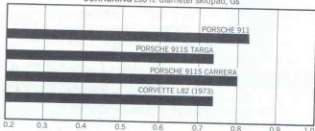
ACCELERATION standing ¼ mile, seconds



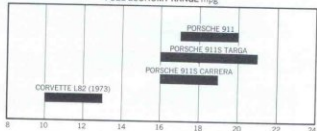
BRAKING 70-0 mph, feet



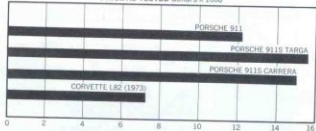
CORNERING 200 ft. diameter skidpad, Gs



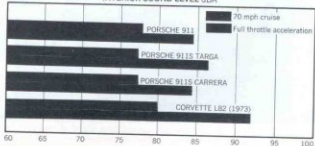
FUEL ECONOMY RANGE mpg



PRICE AS TESTED dollars x 1000



INTERIOR SOUND LEVEL dBA



A CLOSER LOOK AT PORSCHE'S AIR FORCE

... from which we conclude that it will never fly



• You've laid out the extra money to insure that the factory will inscribe "Carrera" across the rocker panels of your new Porsche. And as a \$285 "mandatory option," your 911S will sport the boldest aerodynamic device to land on a street car since the awesome stabilizers of Plymouth's Superbird. But does that ski jump built into the Carrera's deck-lid really do anything? Or is it simply a stylistic lure? Here is the answer.

The Carrera's rear spoiler will indeed do more than turn heads at every stoplight. It does, in fact, coerce air mole-

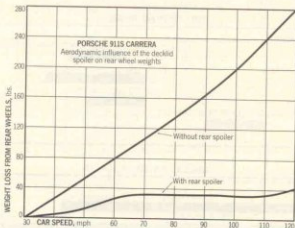
cules rushing over its gelcoat surface into doing genuinely useful work. Namely, the creation of substantial vertical down forces at the rear of the car.

To precisely measure the effects of the spoiler, we instrumented our test Carrera and ran countless high speed laps on the tri-oval at Pocono International Raceway. An onboard strip-chart recorder plotted the information we were after: first of all, car velocity; and secondly, changes in wheel loadings—*exactly* how much force was pressing the tires to the pavement.

A fifth wheel trailing behind the rear bumper delivered forward velocity data to the recorder. Tire loadings, on the other hand, came from a position transducer. It was actually capable of measuring suspension deflections while the car was moving. That information could be translated into "weight on the tires" only after the following pit-side calibration procedure. With the aid of a Turner wheel scale and a floor jack, we cycled the Carrera's height up and down, plotting wheel weight indicated by the scales versus suspension deflation on the chart recorder. With this base-line data, we then knew exactly what force linked the rubber to the road at any speed from zero to the all-out maximum.

The results show that without the spoiler (the test Carrera had been fitted with the Targa's decklid for this comparison) airflow begins lifting the rear of the car at 30 mph. And by 100 mph, the rear of the car is "lighter" by 200 lbs. But with the Carrera spoiler, weight loss stabilizes above 65 mph at only 35 lbs. As a result, the rear tires can develop more cornering force with the spoiler, because they have more vertical load forcing them to the pavement. And you don't have to peg the speedometer before those benefits are delivered. The spoiler begins working to your advantage at 40 mph.

Front wheel weights are also affected—to a lesser extent. With or without the Carrera decklid, the front tires' weight loss due to airflow is approximately 200 lbs. between 60 and 100 mph. But by 120 mph, the rear spoiler is actually a disadvantage, because it unloads the front end by an additional 60 lbs. over the non-spoilered car. Clearly, some sort of snow plow is needed in the front to match the effectiveness of the ski ramp in the rear.



limit. Then the tail swings heavily, and the car responds to an unpracticed and unsubtle touch with a vengeance. Moderate street drivers never learn of this; the venturesome ultimately will find out. Allison, of course, has already served his apprenticeship on the race track.

"The hard thing to really get used to in the race cars at Riverside was, when you go too deep into a corner and lifted, the car would begin to spin. And if you went ahead and did the natural thing, lifted—or put on the brakes—the car would spin. But if you could make yourself put your foot back on the gas pedal, the car would drive out of the spin. That was how (Emerson) Fittipaldi crashed—he knew he had to get back on the gas, but while he was doing it he went too deep and ended up with his front—rather than back—end against the wall. Naturally, Mark (Donohue) and George Folmer knew this. The rest of us just had to kind of find out. It's a completely opposite reaction to a stock car. When you lift in a stock car, it tends to straighten out.

"The other thing is that Porsches tend to oversteer very badly at first, and then correct. When you would expect it to be either lost or in a controlled broadside, it snaps back straight, sometimes even over center toward the other direction. Which I feel would get an inexperienced driver into trouble.

"These cars react the same way the race cars do. Naturally the RSR with the racing suspension and the big, fat racing tires will corner better. But these cars at 50 mph feel exactly the same as the race cars do at 70 or 80.

Curiously, the factory engineers speak of neutral handling as the reason for the Carrera's tire set-up: 185/70 radials on 6.0-inch wheels in front and 215/60 radials on the 7.0-inch rims in back. Intuitively, this sounds like the right approach—bigger tires on the end with the most weight. But in practice, we found no circumstance in which any of the 911s fit our, or Allison's, definition of neutral. In skid-pad testing, they all understeered heavily when under power. And if we lifted abruptly without correcting the steering, they all spun in little more than the length of the car. It was like having a choice of power-on understeer, lift-throttle oversteer and nothing in between. Moreover, the consistency of this reaction in all three cars indicated that the Carrera's wide rear wheels and rear tires make no noticeable difference.

The brand of tire, however, does make an enormous difference in cornering power. The basic 911 and the Car-

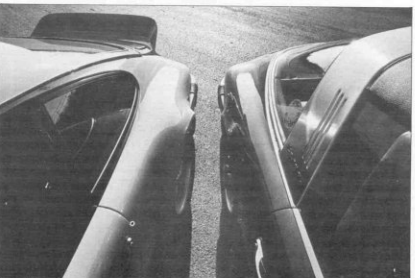
(Continued on page 89)



Three-spoke wheel conveniently obscures the speedometer in the Carrera



Fold-down jump seats are featured on all models; these, however, are real leather



Inch-wider rear wheels, bulged fenders and spoiler transform a 911 into a Carrera

THE 1974 PORSCHEs

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era had identical suspension set-ups: optional Bilstein shock absorbers (which are very harsh for street use) and front and rear anti-sway bars (standard on the Carrera, optional on the 911). The 911 also had the optional 6.0-inch wide wheels (5.5-inch wide is standard). The only difference was tires—Michelin XWX on the 911 and Dunlops on the Carrera—and of course the Carrera's wider rear wheels. The Michelin-shod 911 was far quicker on the skid pad, generating 0.83 G in cornering force compared to 0.80 G for the Carrera. The 911S Targa, also on Dunlops but burdened with air conditioning and lacking the optional rear anti-sway bar was a distant third at 0.74 G. The basic 911, contrary to all that is right, also managed to be easily the fastest on the road course. The high-back bucket seats—new this year—provide excellent lateral support, the Michelin tires are clean and clear in their response, and the optional suspension underpinnings are well suited to track driving. Allison was able to circulate easily at 1:22.0 (78.9 mph).

He did not, however, find the Targa's road course behavior to his liking and his running commentary shows it. "Boy, this thing is top heavy compared to that other one . . . very soft suspension. We're way slower through here than we were in the other car. I guarantee you, you'd have to drive this thing all the way around . . . Yeah, now see, right here the car begins to mush over and pick up oversteer or understeer, depending upon where my throttle pedal foot is."

Six laps of that was enough and he parked it, having recorded a best of 1:23.9 (77.2 mph). The conclusion was that the Targa's extra weight and the Dunlop tires were more than enough to offset the extra power of the "S" engine. In addition, the lack of a rear anti-sway bar on the Targa increased the roll angle considerably which, besides making the car awkward to drive, also presented the tires to the road at a less favorable camber angle (one of the intricacies of the Porsche order form, to wit: A 16mm front bar is standard on the 911 and 911S. But if you order the optional rear sway bar you also get a larger—20mm front bar—so that the understeer/oversteer nature of the two set-ups will be approximately the same). So the standard suspension Targa was slower, by a lot.

Of course, everyone had high hopes for the Carrera. It's price tag says it's the best, right? But Allison just takes them

as they come. ". . . this one doesn't handle as bad as the Targa (911S) and its engine runs nice and strong. But it's still very mushy compared to the 911. In handling, I'd say this one is about one-third better than the Targa and two-thirds poorer than the 911. I can feel the spoiler at high speeds, it pushes the nose up. But on the infield it's just something I can see in the rear-view mirror." The Carrera finished the road course trials in a reasonably close second place at 1:22.8 (78.3 mph). It was agreed that the wide rear wheels and tires made no noticeable difference and that Dunlops in general were less sticky than Michelins. The spoiler is a mixed blessing. In the critical high speed banked turn it definitely discouraged the rear end from its nervous tendency to hang out, but at the same time it increased the vagueness of the steering (See sidebar on aerodynamics, page 30).

Allison is emphatic about Porsche handling. "The most unnatural thing is, when you see that you are in a little bit of a problem and you lift off the gas, the problem increases. Then you're in trouble. What do you do next? With the race cars we found out you stomp your foot down and start steering like a wild man. But I don't think an inexperienced driver is going to do that. These cars do have a strong reputation . . . but I don't see why. I'd guess it comes first of all from the racing versions, and then from its quickness at well under its limit."

On the subject of handling, at least, we are in agreement. When you get used to a Porsche, you can make it do some pretty amazing things. But the idea of evading emergency situations by applying power is so unnatural for most drivers that it is unreasonable in a car intended for street use.

"The dealer where I bought my car happens to be a personal friend and I suppose he'll be greatly disturbed by my comments about his little Kraut wagon." Allison grins and continues, "To be fair, the car has unique characteristics and some people may like it. I don't. I think they are \$12,000 imported Corvairs."

Allison, it turns out, sold his 911T within hours after he finished up at the Riverside IROC. And his reactions, we think, are typical of the general sports-car-driving public. There is no middle ground, you either like Porsches or you hate them. But in all cases, you consider yourself among the fortunate few if you can afford one.



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