

JAGUAR XJ-S, RENAULT 5 GTL & HOT CAPRI TESTS

# ROAD & TRACK

JANUARY 1976

UK 35p

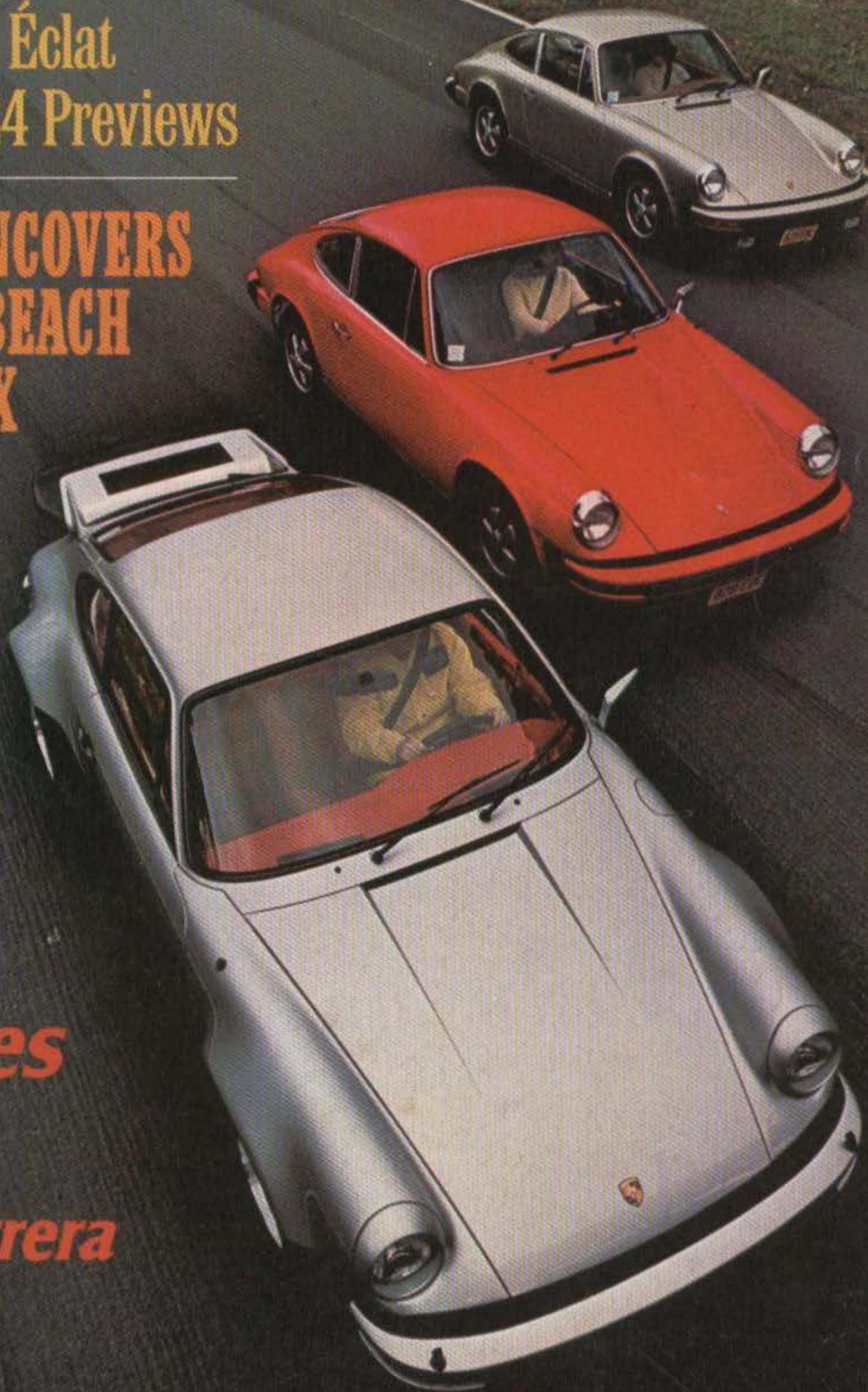
ONE DOLLAR

Lotus Esprit, Éclat  
& Porsche 924 Previews

MANNEY UNCOVERS  
THE LONG BEACH  
GRAND PRIX

**New  
Porsches  
Tested**

**Turbo Carrera  
912E  
911S**



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## COVER

Three Porsches—photographed at  
Lime Rock Park, Connecticut by Joe Rusz



KEN ROOT DRAWING





are noted. As we found in our previous Carrera test, that front skirt and rear spoiler plus those wider rear tires improve the Turbo's stability from 90 mph on up. And with its wider track (a 2.4-in. increase up front and a whopping 4.8-in. increase at the rear compared to the 1975 Carrera) and race-car derived suspension, the Turbo was far and away the easiest Porsche to drive near the limit that we have ever tested. Both the Turbo and the S went through our slalom test faster than the 1975 Carrera, the Turbo's 62.8 mph average breaking the record previously held by a Ferrari Boxer by 2.4 mph! Skidpad figures for all three models are also impressive, ranging from 0.779g (better than our 1975 Carrera) for the 912E to 0.852g for the Turbo. We obtained these results on a new skidpad at Stewart Airport in Newburgh, New York and we'll try to verify these high numbers later in the year by retesting at least one of the 1976 models at our usual southern California skidpad.

Further proof of the Turbo's race-car heritage came during our final day of testing at Lime Rock Park. Sam Posey, a long time resident of the area, wandered out to the track looking for the car he'd be racing that weekend and discovered our trio of Porsches. Would he like to try the Turbo? That was all the urging a car freak like Posey needed and he was buckling himself into the car almost before we finished saying the words. Then, with R&T's editors taking turns in the passenger seat, Posey proceeded to break the Lime Rock track record for production cars by a substantial margin.

Such impressive handling is not achieved without some compromises: stiffer springs and shocks plus wider wheels mean the Turbo rides even more firmly than the S. The steering is slightly heavier, there's more jolting over bumps and potholes and the high performance Pirelli CN36s whine loudly except on very smooth pavement. Luckily the Turbo, like other 911s, has an impressive amount of wheel travel and ground clearance and it's also endowed with that rock solid, unbreakable feel traditional with Porsches.

All three cars have very good brakes. Information received at the 1976 Porsche long lead led us to believe the 912E and the 911s share identical braking systems. Almost, but not quite. The 912E's discs aren't vented as we reported in the December issue and a slightly softer pad material is used up front. Consequently, braking effort is lighter—35 lb for a ½g stop vs 45 lb for the 911s—and the brakes exhibited slight fade vs none for the S and Turbo. Otherwise the brakes perform similarly,

being easy to modulate near the locking point and almost impossible to lock. In the "panic" braking tests the Turbo equipped with the same size wheels and tires as our earlier Carrera stopped quicker despite a 260-lb higher curb weight. Both Carreras had Pirelli CN36 radials, textile belted on the 1975 model and steel belted on the Turbo, and we credit the stickier, more solid-responding steel-belted Pirellis for much of the improvement noted in braking and handling. The S had steel-belted CN36s too, and it also stopped better than the 1975 Carrera. The lighter 912E was equipped with softer riding Uniroyal Rallye 240 radials that were the Pirelli's equal from 60 mph but not quite as effective in our 80-0 mph stops.

## Conclusion

**I**N SUMMATION, the 912E, 911S and Turbo Carrera are three very different yet similar cars that should have even wider appeal than the 1975 models. The 912E will obviously find favor with those who prefer a slightly more practical and tractable Porsche. It's a car with almost all the sporting virtues of the more expensive 911S, yet its simpler pushrod 4-cyl engine should make for better fuel economy and less expensive maintenance than the 911's six.

The 911S is now the only 6-cyl model within the reach of the semi-affluent masses. Those who think of the 912 as something less than a true Porsche won't be satisfied with anything less. And they'll pay the price to get that unique combination of sports car and grand touring machine, characteristics that only a Porsche provides.

At a time when safety and emission regulations have had a strangling effect on automotive advancement, the Turbo Carrera stands out as a significant technical achievement. In one fell swoop Porsche engineers have not only proved that turbocharging and low emissions are totally compatible but have also silenced the critics who say racing doesn't improve the breed. True, such clever engineering doesn't come cheaply, but then Porsche has never before offered a 911 with the luxury, performance and technical sophistication of the Turbo.

Unfortunately, all good things come to an end and in a few years we'll be seeing that new generation of front-engine, water-cooled Porsches mentioned previously. But these new models will have to be more than very good cars to displace the marque loyalty, admiration and respect that has built up over the years for the type 901 body style. 

## 912E ROAD TEST RESULTS

### ACCELERATION

Time to distance, sec:	
0-100 ft	3.8
0-500 ft	9.8
0-1320 ft (¼ mi)	18.2
Speed at end of ¼ mi, mph	75.0
Time to speed, sec:	
0-30 mph	3.7
0-50 mph	8.0
0-60 mph	11.3
0-70 mph	15.4
0-80 mph	21.0
0-90 mph	29.5

### SPEEDS IN GEARS

5th gear (5050 rpm)	115
4th (5800)	104
3rd (5800)	73
2nd (5800)	50
1st (5800)	29

### FUEL ECONOMY

Normal driving, mpg	23.0
Cruising range, mi (1-gal. res)	462

### HANDLING

Speed on 100-ft radius, mph	34.1
Lateral acceleration, g	0.779
Speed thru 700-ft slalom, mph	56.8

### BRAKES

Minimum stopping distances, ft:	
From 60 mph	155
From 80 mph	279
Control in panic stop	very good
Pedal effort for 0.5g stop, lb	35
Fade: percent increase in pedal effort to maintain 0.5g deceleration in 6 stops from 60 mph	29
Parking: hold 30% grade?	yes
Overall brake rating	very good

### INTERIOR NOISE

All noise readings in dBA:	
Idle in neutral	55
Maximum, 1st gear	82
Constant 30 mph	67
50 mph	71
70 mph	76

### SPEEDOMETER ERROR

30 mph indicated is actually	26.0
50 mph	46.0
60 mph	56.0
70 mph	66.0
80 mph	76.0
Odometer, 10.0 mi	9.8

## 911S ROAD TEST RESULTS

### ACCELERATION

Time to distance, sec:	
0-100 ft	3.6
0-500 ft	8.9
0-1320 ft (¼ mi)	15.8
Speed at end of ¼ mi, mph	90.5
Time to speed, sec:	
0-30 mph	3.0
0-50 mph	5.7
0-60 mph	7.5
0-70 mph	9.8
0-80 mph	12.4
0-100 mph	20.0

### SPEEDS IN GEARS

5th gear (5800 rpm)	138
4th (6600)	125
3rd (6600)	98
2nd (6600)	69
1st (6600)	38

### FUEL ECONOMY

Normal driving, mpg	20.0
Cruising range, mi (1-gal. res)	402

### HANDLING

Speed on 100-ft radius, mph	35.0
Lateral acceleration, g	0.817
Speed thru 700-ft slalom, mph	61.2

### BRAKES

Minimum stopping distances, ft:	
From 60 mph	152
From 80 mph	265
Control in panic stop	very good
Pedal effort for 0.5g stop, lb	45
Fade: percent increase in pedal effort to maintain 0.5g deceleration in 6 stops from 60 mph	nil
Parking: hold 30% grade?	yes
Overall brake rating	very good

### INTERIOR NOISE

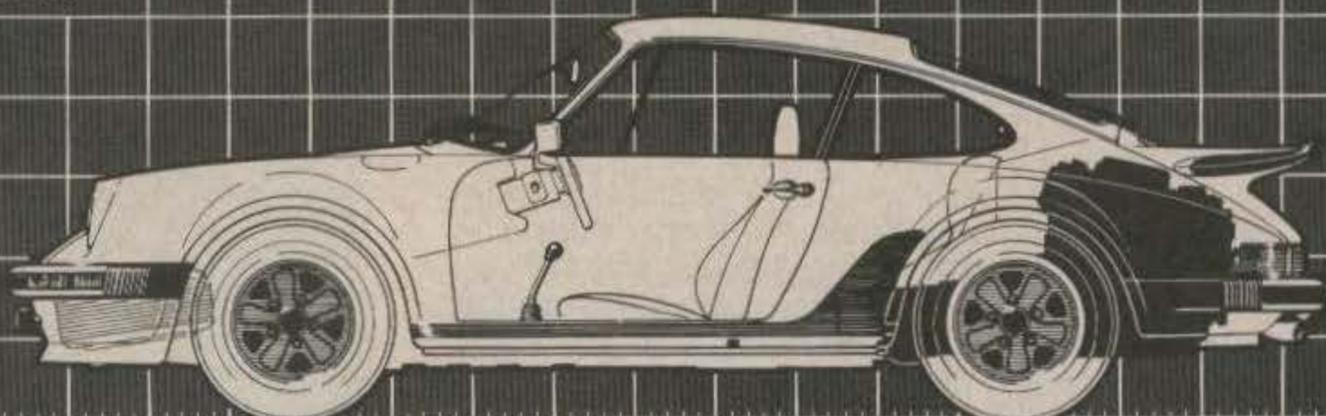
All noise readings in dBA:	
Idle in neutral	60
Maximum, 1st gear	83
Constant 30 mph	69
50 mph	73
70 mph	77
90 mph	80

### SPEEDOMETER ERROR

30 mph indicated is actually	26.5
50 mph	46.0
60 mph	56.0
70 mph	66.0
80 mph	76.0
Odometer, 10.0 mi	9.8



# ROAD TEST PORSCHE TURBO CARRERA



SCALE: 10' DIVISIONS

## PRICE

List price, east coast ..... \$25,880  
List price, west coast ..... \$26,000  
Price as tested, east coast ..... \$25,880  
Price as tested includes standard equipment (air conditioning, automatic heat control, AM/FM/stereo, electric antenna, electric window lifts, leather interior)

## IMPORTER

Porsche-Audi Div, VW of America  
818 Sylvan Ave  
Englewood Cliffs, N.J. 07632

## GENERAL

Curb weight, lb ..... 2785  
Test weight ..... 3155  
Weight distribution (with driver), front/rear, % ..... 38/62  
Wheelbase, in ..... 89.4  
Track, front/rear ..... 56.4/59.1  
Length ..... 168.9  
Width ..... 69.9  
Height ..... 52.0  
Ground clearance ..... 5.9  
Overhang, front/rear ..... 36.7/42.8  
Usable trunk space, cu ft ..... 4.5  
Fuel capacity, U.S. gal ..... 21.1

## ENGINE

Type ..... sohc flat 6  
Bore x stroke, mm ..... 95.0 x 70.4  
Equivalent in ..... 3.74 x 2.77  
Displacement, cc/cu in ..... 2993/183  
Compression ratio ..... 6.5:1  
Bhp @ rpm, net ..... 234 @ 5500  
Equivalent mph ..... 140  
Torque @ rpm, lb-ft ..... 246 @ 4500  
Equivalent mph ..... 115  
Fuel injection ..... Bosch CIS  
Fuel requirement: .. premium, 96-oct  
Exhaust-emission control equipment: two thermal reactors, air injection

## DRIVETRAIN

Transmission ..... 4-sp manual  
Gear ratios: 4th (0.66) ..... 2.79:1  
3rd (0.89) ..... 3.76:1  
2nd (1.30) ..... 5.49:1  
1st (2.25) ..... 9.50:1  
Final drive ratio ..... 4.22:1

## CHASSIS & BODY

Layout ..... rear engine/rear drive  
Body/frame ..... unit steel  
Brake system ..... vented discs; 11.1-in. front, 11.4-in. rear  
Swept area, sq in ..... 500  
Wheels ..... forged alloy; 15 x 7J front, 15 x 8J rear  
Tires ..... Pirelli CN36; 185/70VR-15 front, 215/60VR-15 rear  
Steering type ..... rack & pinion  
Overall ratio ..... 17.8:1  
Turns, lock-to-lock ..... 3.1  
Turning circle, ft ..... 35.4  
Front suspension: MacPherson struts, lower arms, torsion bars, tube shocks, anti-roll bar  
Rear suspension: semi-trailing arms, torsion bars, tube shocks, a-r bar

## INSTRUMENTATION

Instruments: 180-mph speedo, 8000-rpm tach, 999,999 odo, 999.9 trip odo, oil press., oil temp, oil level, fuel level, clock  
Warning lights: oil temp, brake system, handbrake, alternator, low fuel, parking lights, fog lights, rear-window heat, hazard, seat-belts, high beam, directionals

## ACCOMMODATION

Seating capacity, persons ..... 2+2  
Seat width ..... 2 x 19.5 / 2 x 13.5  
Head room ..... 38.0/31.5  
Seat back adjustment, deg ..... 70

## MAINTENANCE

Service intervals, mi:  
Oil change ..... 15,000  
Filter change ..... 15,000  
Chassis lube ..... none  
Tuneup ..... 15,000  
Warranty, mo/mi ..... 12/20,000

## CALCULATED DATA

Lb/bhp (test weight) ..... 13.5  
Mph/1000 rpm (4th gear) ..... 26.0  
Engine revs/mi (60 mph) ..... 2310  
Piston travel, ft/mi ..... 1065  
R&T steering index ..... 1.10  
Brake swept area, sq in./ton ..... 317

## 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 911 Turbo Carrera to be better than average.

## TURBO CARRERA ROAD TEST RESULTS

### ACCELERATION

Time to distance, sec:  
0-100 ft ..... 4.0  
0-500 ft ..... 8.7  
0-1320 ft (¼ mi) ..... 15.2  
Speed at end of ¼ mi, mph ..... 99.5  
Time to speed, sec:  
0-30 mph ..... 3.8  
0-40 mph ..... 4.5  
0-50 mph ..... 5.2  
0-60 mph ..... 6.7  
0-70 mph ..... 8.2  
0-80 mph ..... 9.9  
0-100 mph ..... 15.3

### SPEEDS IN GEARS

4th gear (6150 rpm) ..... 156  
3rd (6950) ..... 139  
2nd (6950) ..... 85  
1st (6950) ..... 51

### FUEL ECONOMY

Normal driving, mpg ..... 17.0  
Cruising range, mi (1-gal. res) ..... 342

### HANDLING

Speed on 100-ft radius, mph ..... 35.7  
Lateral acceleration, g ..... 0.852  
Speed thru 700-ft slalom, mph ..... 62.8

### BRAKES

Minimum stopping distances, ft:  
From 60 mph ..... 158  
From 80 mph ..... 253  
Control in panic stop ..... very good  
Pedal effort for 0.5g stop, lb ..... 45  
Fade: percent increase in pedal effort to maintain 0.5g deceleration in 6 stops from 60 mph ..... nil  
Parking: hold 30% grade? ..... yes  
Overall brake rating ..... very good

### INTERIOR NOISE

All noise readings in dBA:  
Idle in neutral ..... 57  
Maximum, 1st gear ..... 81  
Constant 30 mph ..... 70  
50 mph ..... 72  
70 mph ..... 76  
90 mph ..... 80

### SPEEDOMETER ERROR

30 mph indicated is actually ..... 24.0  
50 mph ..... 43.0  
60 mph ..... 53.0  
70 mph ..... 63.0  
80 mph ..... 72.0  
Odometer, 10.0 mi ..... 9.8

## ACCELERATION

