

2.4

911E

P O R S C H E

The Porsche 911.

**A sports car that can be entered in competition -
right from the show-room.**

**But is also comfortable and civilized, so it has all
the good qualities of a sedan for everyday driving.**

**And finally, an automobile that is a styling classic,
with lines totally unaffected by fashion whims.**



The technical perfection of the Porsche 911 results from many years of experience with this basic model, observing it in everyday situations and constantly subjecting it to critical tests in racing situations. Before changes are made in the standard production models, they undergo rigorous testing on the track. But the one thing we have not changed is the basic Porsche concept. Today, years after the first Porsche 911 made its debut, we still maintain the same approach to sports car construction: confront our designers with the ever-tougher challenge of improving our racing cars. To make sure you get a better production car.

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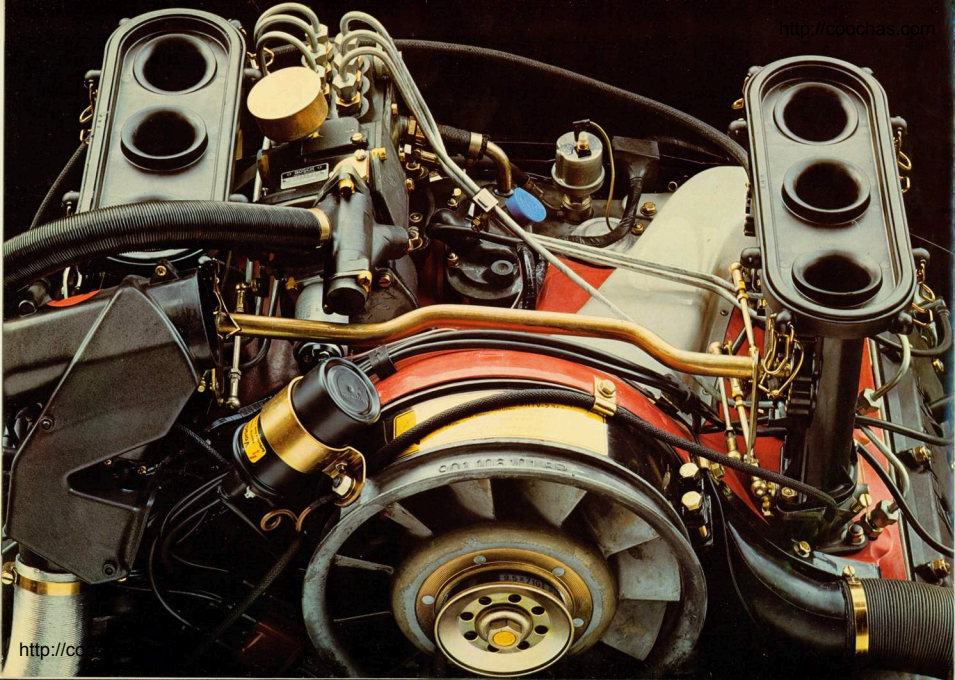
The result: The Porsche 911 has become



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the most successful sports car in the world.





The fuel-injected 2.4 liter engine: engineered for maximum performance.

All Porsche engines are rugged, tested high performance power plants with extensive rpm reserves and low piston velocities. You can drive them at top speeds for hours on end or push them through the gears flat out. A governor prevents overrevving. At the other extreme, backed-up in rush-hour highway traffic or on a city's congested streets, the Porsche engine won't let you down either. It's air-cooled, so it can't boil over. In short, it's designed for punishment almost beyond belief.

All three engines – the 911 T, 911 E and 911 S – share the same basic design. The six cylinders are horizontally opposed, and are covered with light alloy cylinder heads. On the 911 E and 911 S the heads have deep ventilating ribs to prevent excessive thermal stress.

The V-patterned overhead valves are controlled by rocker arms which are actuated by overhead camshafts above each cylinder bank. The forged 8-

main bearing crankshaft ensures virtually vibration-free operation. A dry-sump lubrication system guarantees uniform oil supply to all lubrication points, even when your Porsche is cornering at high speeds.

All three engines are fed by Bosch mechanical fuel injection, with horsepower ratings of 135 DIN hp (129 SAE net hp) for the 911 T, 165 DIN hp (157 SAE net hp) for the 911 E and 190 DIN hp (181 SAE net hp) for the 911 S. The Bosch system's precise metering of the fuel-air mixture greatly reduces unburned hydrocarbons and carbon monoxide. Also helping in our efforts to detoxify exhaust emissions are our engines' low compression ratios, which permit maximum efficiency when using lead-free regular 91 octane gasoline.

The result: an engine with power enough for maximum torque versatility and exceptional performance. And an engine that is also cleaner in the bargain.



The synchromesh transmission: it comes in three different versions.

The high engine speeds and great flexibility of the 2.4 liter engines make it possible to provide all 911 models with a 4-speed transmission as standard equipment. The engine and transmission form a perfectly harmonized single unit, providing maximum power to the driving wheels. The synchronization is very fast; only short, precise movements are necessary to shift into the different gears. The gear ranges have been carefully adapted to the engine characteristics and individual model types. This means fast response in any gear, in any driving situation.

For special performance requirements, as an option you can have your Porsche equipped with a 5-speed transmission.

Or you can order the Sportomatic option – the automatic transmission for sports drivers. It combines the advantages of the 4-speed standard transmission with the benefits of a hydraulic torque

converter.

With the Sportomatic you can shift or not shift, depending on your style and depending on the driving situation. In heavy city traffic or slow-moving lines on the highway, you simply remain in the selected gear. No downshifting, no gearing up. But on the open road and in competition driving, you can shift it like a straight stick, but without the need to clutch. Because there isn't any clutch pedal. (When you shift gears, it clutches automatically.) So the Sportomatic not only saves wear and tear on the drive train elements, it saves wear and tear on your nerves.

But is the Sportomatic really up to standard Porsche performance? To test it, we entered a Sportomatic-equipped Porsche in the grueling 84-hour Nürburgring classic, hoping it would give a creditable showing. It exceeded our hopes by winning the overall classification, another instance of testing Porsche components at the track.





The chassis: an optimum combination of sporting safety and driving comfort.

The Porsche chassis clearly shows there is no contradiction between suspension/damping comfort and sporty roadability.

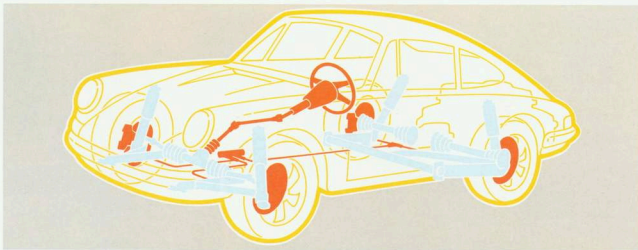
The independently suspended front wheels are stabilized by wishbones, in combination with torsion-bar springs and shock absorbers. This means the wheels maintain independent contact with the road. More precisely: potholes and rough spots which affect one wheel have no influence on the smooth running of the other wheel.

Also the rear wheels are independently suspended. They are stabilized by semi-trailing arms and sprung with longitudinal torsion bars and double-

action hydraulic shock absorbers. Anti-roll stabilizers (standard equipment on the 911 S) are available as options; they provide for even better roadholding ability.

The wide-rim wheels and tires also contribute to Porsche's high-speed curving abilities. They reinforce the braking effect of the chassis substantially, absorb lateral forces and enable increased lateral acceleration.

In addition, these wheels (15 inches on all Porsches) have a greater circumference. The advantage here is a smoother ride on rough roads and longer life for tires.





The brakes, steering and roadability: designed to produce the safest-handling Porsche ever made.

Critical traffic situations can be more safely responded to because of the Porsche's powerful engines. The Porsche 911 S, for instance, accelerates from 0 to 60 in about 7 seconds, assuring greater passing safety. Even at high cruising speeds you still have a power reserve if you need it.

But how fast a Porsche goes from 0 to 60 is no more important than how fast it goes from 60 to 0. At this speed, a Porsche can be brought to a complete stop in just 3.2 seconds.

The key to this exceptional stopping ability is the dual-circuit braking system with four large-dimension disc brakes. The discs are ventilated for better cooling. Even after repeated full braking they still continue to engage with the same full force to stop you in the same short time.

There are still more designed-in safety features in the Porsche 911. The weight of the rear engine over the driving wheels gives our car superior roadability even on inclines and ice and snow. The 911 E and 911 S have a special front apron which functions as a spoiler. It reduces wind lift on the front end at high speeds, giving a more stable ride. Excellent tracking and smooth, direct rack-and-pinion steering allow you to react to sudden obstacles with a quick steering maneuver while maintaining maximum control.

Taking these and other factors together, it is not surprising that many drivers consider the Porsche 911 one of the safest cars made today – whether you drive it on the road or on the track.

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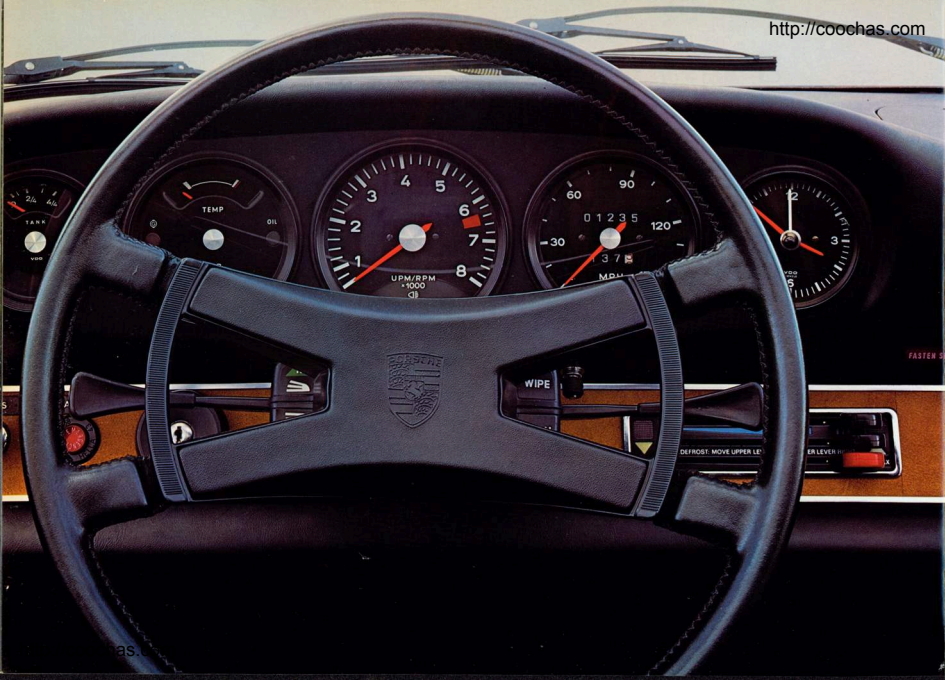
But, technical sophistication is only one



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reason why the Porsche is what it is.





TANK
VMB

TEMP
OIL

UPM/RPM
x1000
RPM

MPH

12
3
5



WIPE

DEFROST. MOVE UPPER LEV

ER LEVER

FASTER S

Comfort is not an "extra" in a Porsche.

With all the Porsche racing victories it is easy to forget that the vast majority of Porsches are driven in normal, everyday traffic. That's why we designed the Porsche to offer at least as much comfort as an expensive sedan...much more than one expects from a sports car.

The interior design and instruments are strictly functional. This means that you can reach all control elements quickly and effortlessly. For example, without taking your hands off the steering wheel or your eyes from the road, you can operate either of the two combination switches on the steering column to control the three-stage windshield wipers, the

windshield washing unit, the directional signals, and the dimmer switch. The glare-free gauges lie directly in the driver's field of vision: tachometer, speedometer with trip odometer, oil temperature and fuel gauges constantly report on the operational condition of your Porsche.

But the Porsche also offers many other details to make driving pleasant for you. There is the draft-free ventilation and heating system with a three-stage blower, each independently variable, the electrically heated rear window, the 4-nozzle electric windshield washer, back-up lights and an electric clock with elapsed time indicator.





The interior dimensions of the Porsche 911 give the driver and passenger completely unencumbered freedom of movement. The seats are fully adjustable to provide maximum legroom, and the seatbacks can be reclined to a nearly horizontal position. The shells and padding give exceptional lateral support, and this (combined with the seats' position near the vehicle's center of gravity) means you don't have to use the steering wheel for support, even when cornering on a fast curve.



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Two luggage compartments: one in front, one inside.

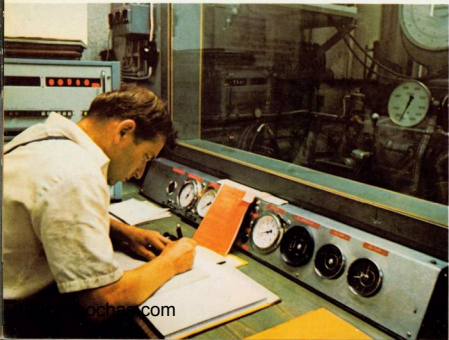
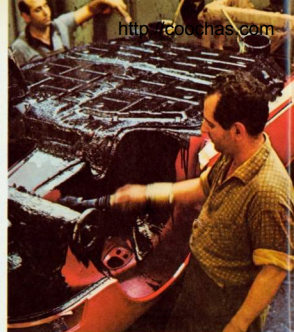
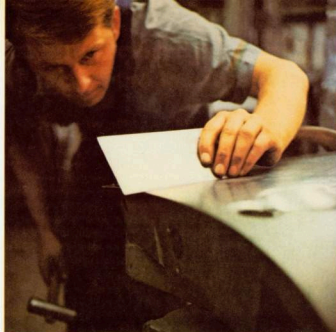


The space-saving front axle takes up so little room in front that a very large 200-liter (7.1 cubic foot) trunk is possible.

It is completely carpeted to prevent luggage from slipping, sliding or becoming damaged.

Need more space? Behind the seats you have a second luggage area with about 235 liters (8.3 cubic feet) of room to store things.

All in all, the Porsche 911 has a little more luggage space than even some sedans. And a lot more than most sports cars.



A Porsche is not new until it is 35 km old.

The more technically sophisticated a car is, the more carefully it must be tested. The Porsche has to pass a whole series of demanding tests before it is released for delivery.

We test the engine first. Before it is assembled, each individual part is carefully checked for quality. For example, the valves and camshafts are checked for weight, imbalance and tensile strength.

The reassembled engine is checked on the testing stand for power output, spark adjustment and fuel

consumption. After all these tests comes the final and deciding test for the finished vehicle: by the Porsche test drivers.

Everything in the car is systematically checked for functional reliability on driving test stands and finally over a 35 km test course: engine performance, power transmission, chassis adaptation, steering precision, braking capacity, tire quality, et cetera.

But, Porsches already have the best test run behind them before they are even built – the race track.





Owning a Porsche 911 is more than a matter of money. It's a matter of style.

Obviously not everyone who can afford a Porsche 911 buys one.

In the people who do own this limited production car, however, one finds a certain mystique, a discernment, a preference for the better things in life.

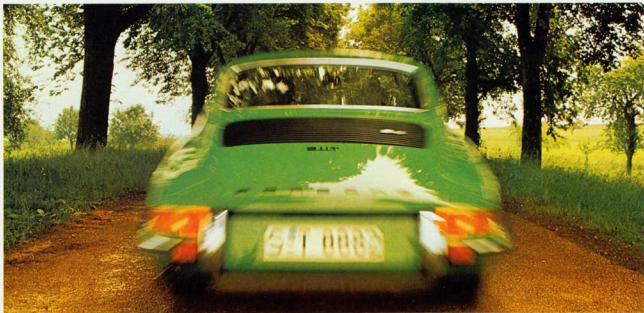
Porsche owners tend to be keen enthusiasts of various pursuits. People who take pride in the objects they own. People, above all, who look beyond the obvious.

Thus, as you would expect, they want more than a beautifully-designed car which can outperform nearly everything else on the road. And they see

beyond Porsche's notable racing achievements the valuable experience which is converted into constantly improved product design.

Most people who buy the Porsche 911 have as well an appreciation of engineering excellence. They look for and find in the Porsche the minutest details that indicate superb craftsmanship and uncompromising quality control. They understand that Porsche is a unique motoring experience – an original which can neither be compared with nor copied by other cars.

In short, for them, the Porsche 911 is the ultimate personal automobile.



Equipment Differences in the Porsche Program ochas.com

Body Equipment

911 T: Rubber profile strips on the bumpers. Rubber bumper guards, front and rear. Complete underbody, all cavities treated with PVC undercoating.

911 E: Same as 911 T, but with front apron acting as spoiler. Pressure-cast alloy wheels.

911 S: Same as 911 E, but with heavy-duty rubber profile strips to protect the bumpers from damage during parking. Aluminum door sills, chromed rocker panels. Light alloy bumper center piece. Forged alloy wheels.

Windows

911 T, E, S: Laminated safety glass windshield, safety glass side and rear windows. Electric windshield washer unit. Three-speed windshield wipers (automatic return-to-starting position circuit). Front wing windows (only on Targa). Hinged windows in back with burglar-proof lock (only on Coupé). Electrically heated rear window (with two-stage heater; tinted on the Targa). Inside day/night mirror mounted to the windshield.

Interior-Equipment

911 T and E: Four-spoke steering wheel with recessed steering column and padded horn ring. Safety padded sun visors. Illuminated ashtray. Cigarette lighter. Illumination of emergency flasher and heater/defroster controls. Reclining front seats. Hand throttle. Locking seat-back on both seats. Armrests also serve as interior door handles. Two storage pockets on door panels and sides of foot wells. Two shoulder/lap type safety belts with warning system. Synthetic fiber carpeting. Heating and ventilation system with three-speed fresh air fan. Draft-free forced ventilation. Built-in luggage strap loops below rear window. Two flexible coat hooks.



Interior finishing and upholstery: All models with colored leatherette in black, brown or beige.

Your local authorized Porsche Audi dealer will be happy to show you the various combinations and possibilities.

911 S: Same as 911 T, but with velour-type carpeting. Aluminum door sills.

Instrumentation

911 T and E: Speedometer with total and trip odometer reading to 100 ft. Transistorized tachometer. Fuel gauge with reserve indicator light. Oil temperature gauge, oil pressure light. Indicators for battery charge, parking lights, high beam, blinkers, hand brake and two-circuit brake system. Electric clock with adjustable elapsed time monitor.

911 S: Same as 911 T and E, but with oil thermometer, oil level and oil pressure indicators.

Electrical System and Equipment

911 T, E, S: Two 12 V/36 Amp/hr batteries. 770 W alternator. Sealed beam headlights. Two back-up lights. Rheostat controlled instrument panel lighting. Luggage compartment lighting. Two-circuit warning blinker system with control light. Glove compartment light (can also be used as reading lamp). Two interior lights. Lighted ashtray. Dual tone horns.

Optional Equipment

Besides the many extras, all Porsche models can be equipped with exclusive accessories.

A couple of examples are: air conditioning, electric windows, full leather upholstery and electrical sun roof. Your local authorized Porsche Audi dealer will be happy to advise you on these and many other possibilities.

In some cases, the cars pictured in this catalog have been provided with optional equipment or equipment required in specific countries and thus do not always correspond to equipment available or standard at your local authorized Porsche Audi dealer. Rights reserved to make design and equipment alterations without notice.

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The Porsche outdoes the average automobile not only in terms of performance, sportiness and technical perfection but, of course, also in price.

This is the reason why many people who dream of owning one must dream a long time before they get their first factory-new Porsche.

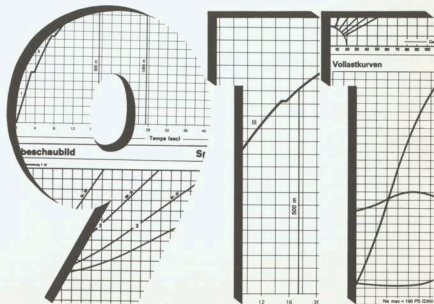
However, why not shorten the waiting by starting with a second-hand Porsche? The risk involved with a used Porsche is often much less than with other used cars.

Also, through our world-wide service organization, we make sure all Porsches are maintained and repaired with the same perfection that is built into them.

Porsches are and remain rugged and reliable to an extent that can be expected from very few other vehicles.

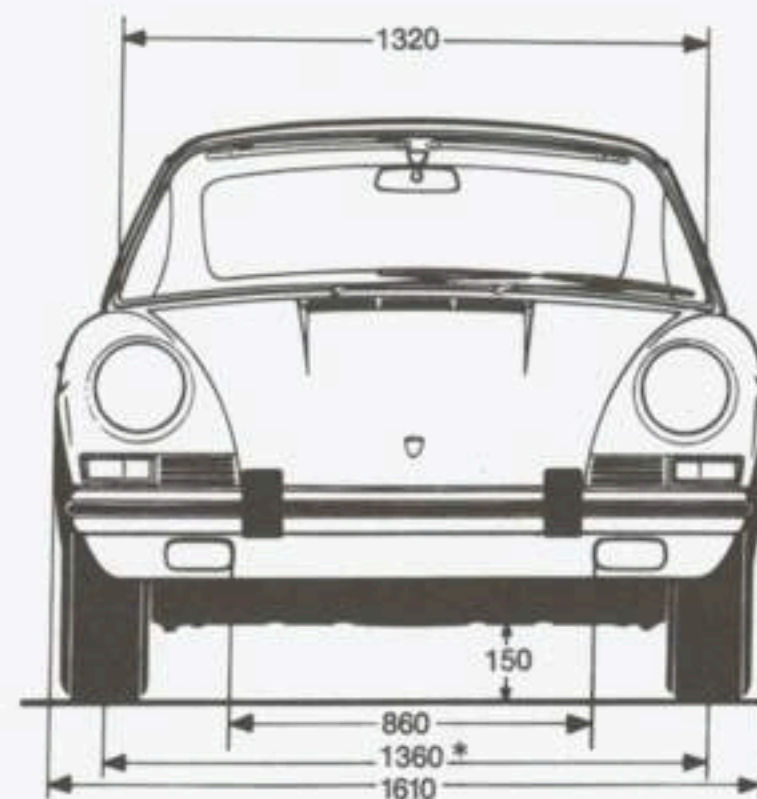
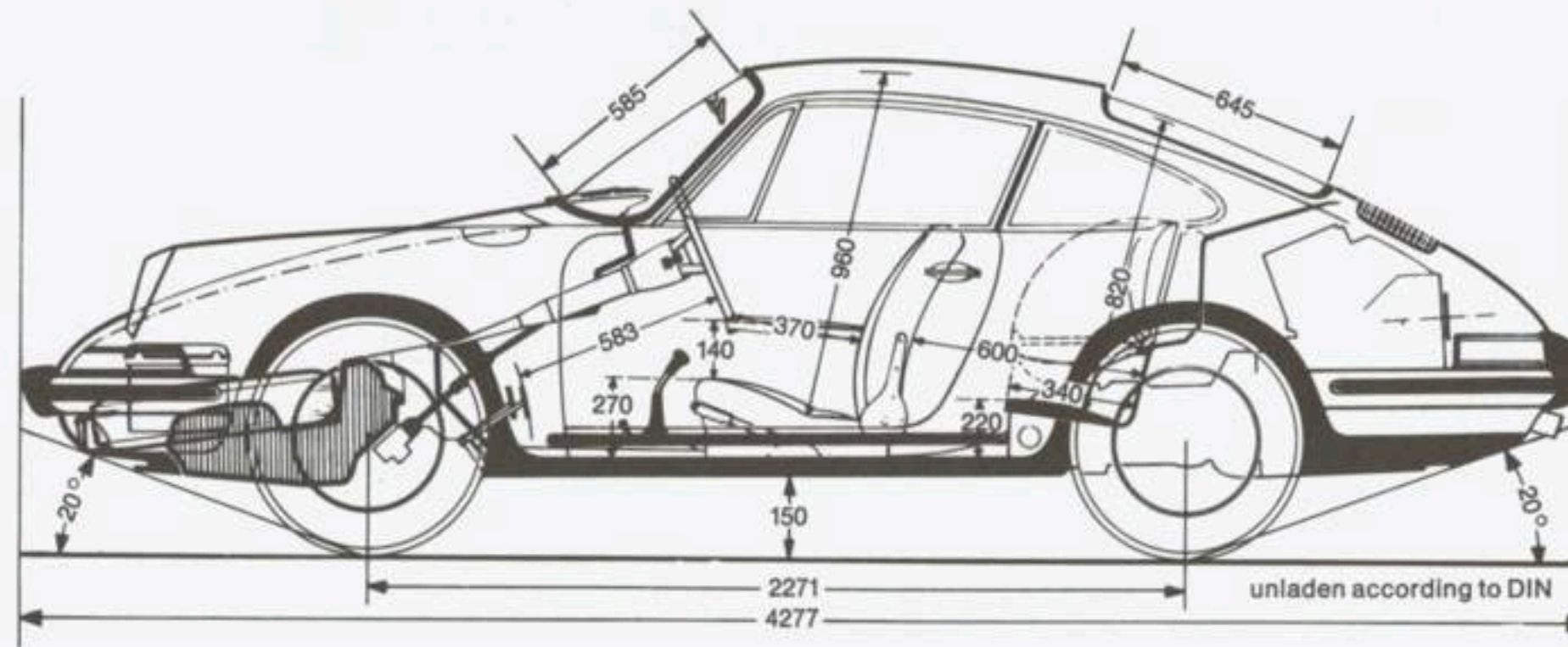
Let alone from any other sports car.

The Porsche 911. Technical Data.

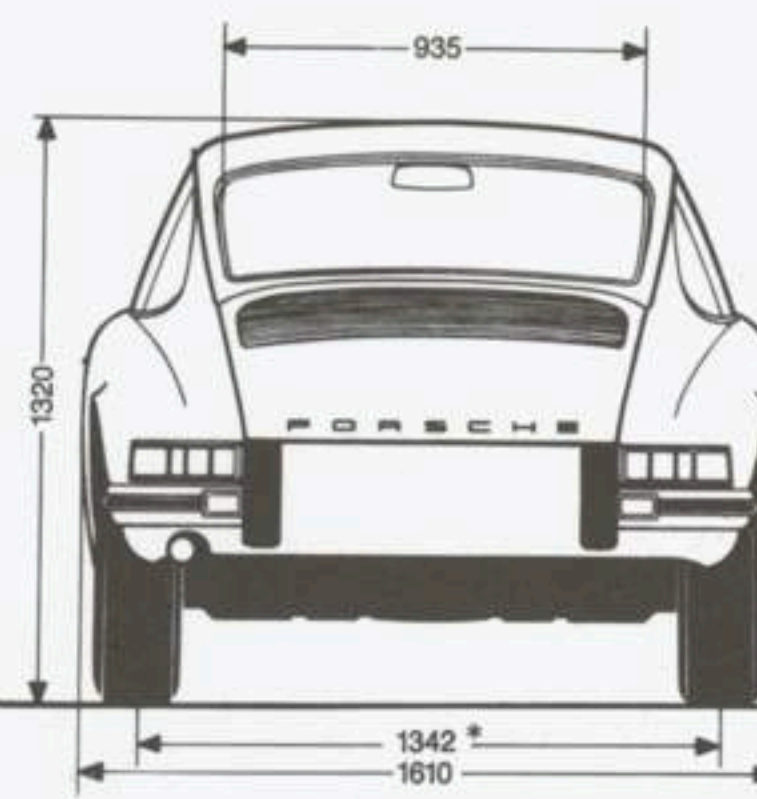


	911 T	911 E	911 G
Engine			
Number of cylinders	6	6	6
Bore mm (in.)	84 (3.31)	84 (3.31)	84 (3.31)
Stroke mm (in.)	70.4 (2.77)	70.4 (2.77)	70.4 (2.77)
Displacement ccm (cu. in.) fiscal	2311 (141.0)	2311 (141.0)	2311 (141.0)
Displacement ccm (cu. in.) effective	2341 (142.8)	2341 (142.8)	2341 (142.8)
Compression ratio	7.5 : 1	8.0 : 1	8.5 : 1
Engine output HP (DIN/SAE net)	135/129	165/157	190/181
at engine speed RPM	5600	6200	6500
Max. torque mkg - DIN (ft. lbs.-SAE net)	20 (140)	21 (147)	22 (154)
at engine speed RPM	4000	4500	5200
Output per liter HP (DIN/SAE net)	58/55	70/67	81/77
Fuel octane requirement (RM)	91	91	91
Engine Design			
Layout		Air-cooled four-cycle horizontally opposed	
Crankcase	light alloy	light alloy	light alloy
Cylinders (individual)	cast iron	cast iron liner in finned light alloy jacket	cast iron liner in finned light alloy jacket
Valve position in cylinder head	1 inlet, 1 exhaust; inverted V-pattern	1 inlet, 1 exhaust; inverted V-pattern	1 inlet, 1 exhaust; inverted V-pattern
Valve operation		single overhead camshaft for each cylinder bank	
Camshaft drive	by double chain	by double chain	by double chain
Crankshaft	forged steel, 8 main bearings	forged steel, 8 main bearings	forged steel, 8 main bearings
Lubrication		dry sump with separate oil tank, thermostatically controlled oil cooling, full flow oil filter	
Fuel supply	electric pump	electric pump	electric pump
Mixture supply	fuel injection	fuel injection	fuel injection
Electrical System			
Battery voltage V	12	12	12
Battery rating (Amp/hr)	2 x 36	2 x 36	2 x 36
Generator	770 W alternator	770 W alternator	770 W alternator
Ignition	HT battery/capacitor	HT battery/capacitor	HT battery/capacitor
Spark plugs (electrode gap mm/in.)	Beru 225/14/3 Bosch W 230 T 30 (0.6/0.024)	Beru 265/14/3 T Bosch W 265 P 21 (0.6/0.024)	Beru 265/14/3 T Bosch W 265 P 21 (0.6/0.024)
Transmission			
Clutch	single dry plate	single dry plate	single dry plate
Manual gear box	Porsche Synchromesh	Porsche Synchromesh	Porsche Synchromesh
Number of speeds	4 forward, 1 reverse	4 forward, 1 reverse	4 forward, 1 reverse
Final drive	spiral bevel, differential	spiral bevel, differential	spiral bevel, differential
Rear axle half shafts	double universal joint	double universal joint	double universal joint
Shift lever location		stick shift on floor next to driver's seat	
Final drive ratio	4.429 : 1 (7/31)	4.429 : 1 (7/31)	4.429 : 1 (7/31)
Optional equipment			
Final drive (with manual gear box)	ZF limited-slip differential	ZF limited-slip differential	ZF limited-slip differential
Special equipment	5-speed	5-speed	5-speed
Special equipment	4-speed Sportomatic	4-speed Sportomatic	4-speed Sportomatic

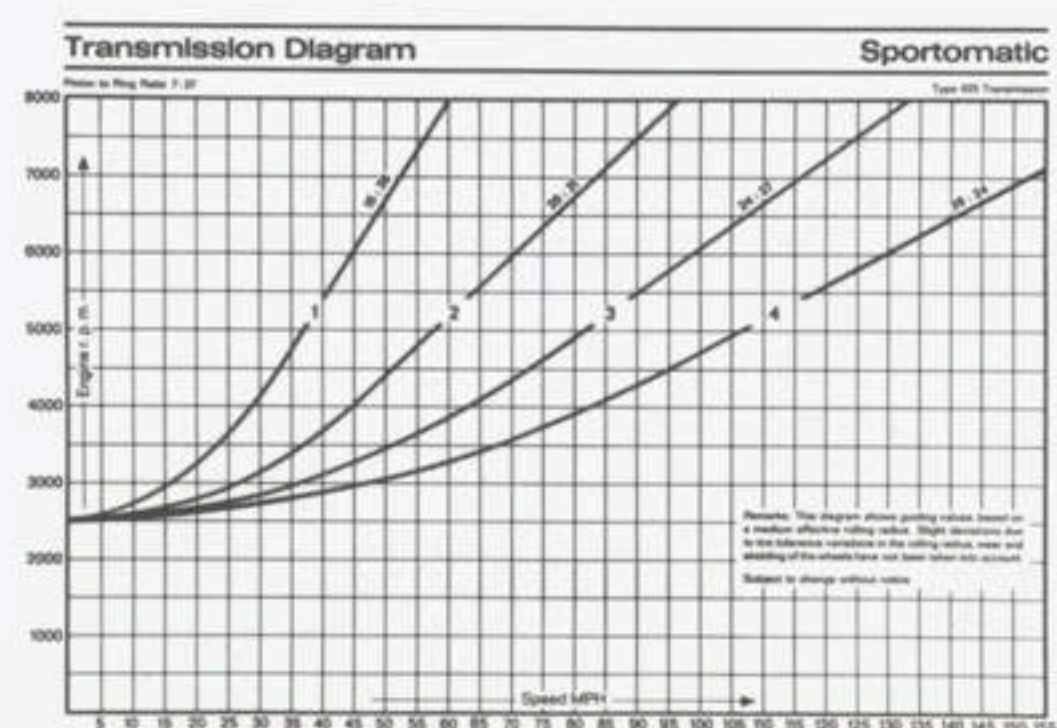
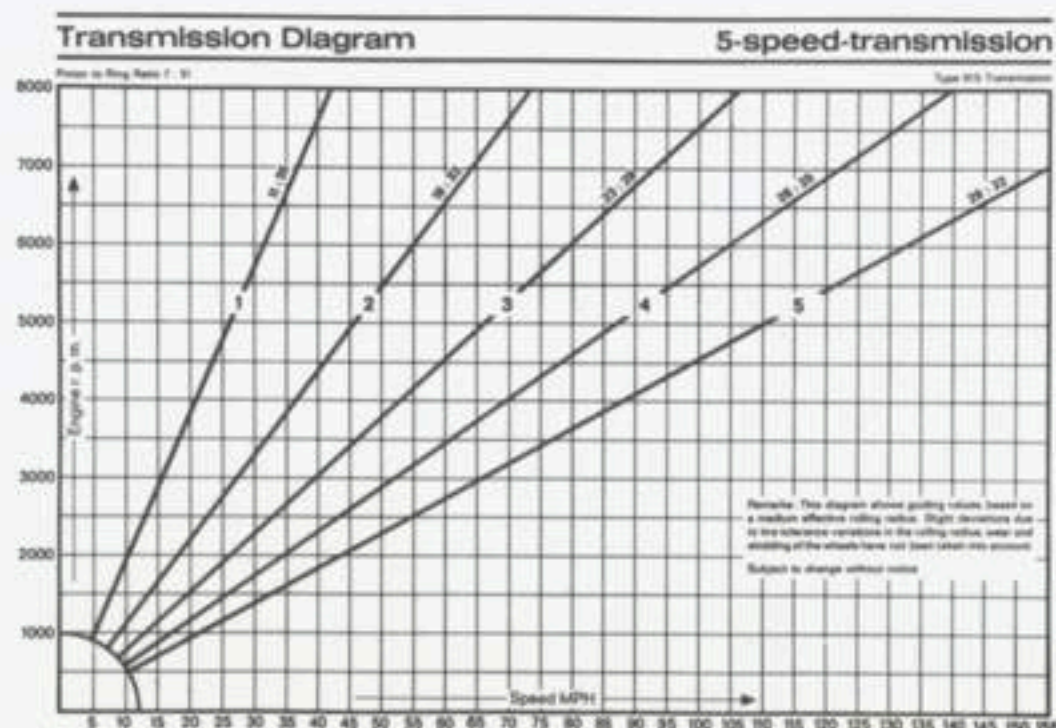
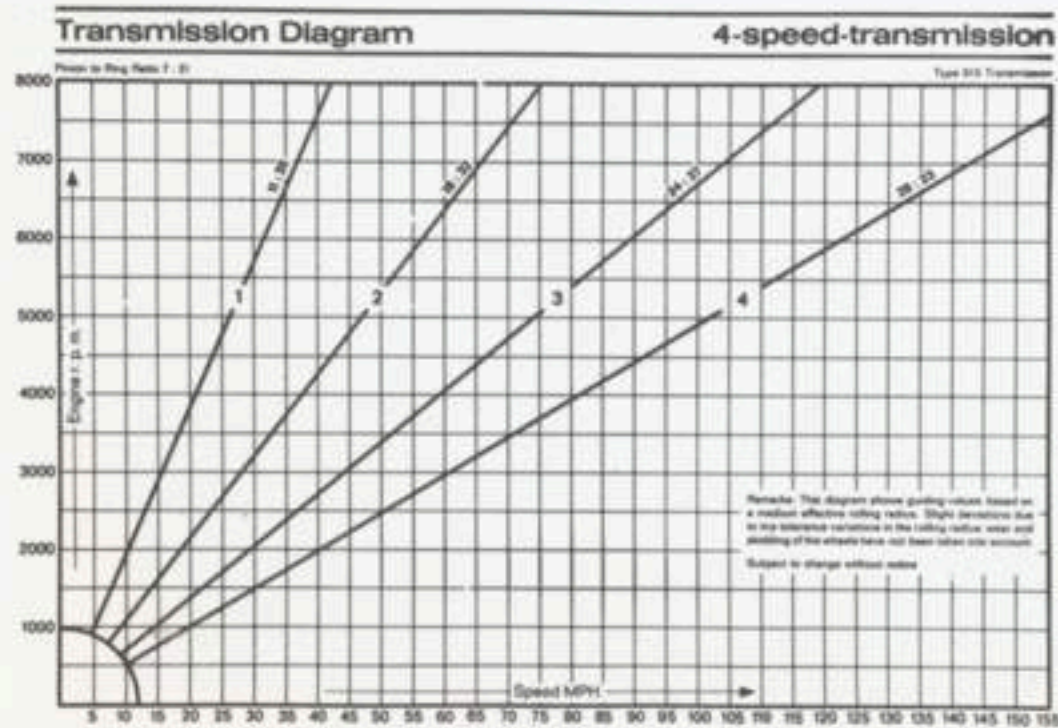
	911 T	911 E	911 S
Sportomatic Transmission			
Clutch	hydraulic torque convertor and vacuum operated MZ 180 K single dry plate clutch		
Number of speeds	4 forward, 1 reverse and parking lock	4 forward, 1 reverse and parking lock	4 forward, 1 reverse and parking lock
Chassis, Suspension			
Self-supporting body shell independent front suspension with wishbones and	shock absorber struts	shock absorber struts	shock absorber struts
Front springs	torsion bars	torsion bars	torsion bars
Rear suspension	independent, semi-trailing arms	independent, semi-trailing arms	independent, semi-trailing arms
Rear springs	1 transverse torsion bar per wheel	1 transverse torsion bar per wheel	1 transverse torsion bar per wheel
Shock absorbers	front and rear hydraulic double-acting shock absorbers		
Stabilizers front/rear	optional	optional	standard equipment
Foot brake	hydraulic dual circuit, with ventilated discs at all 4 wheels		
Wheels	5-1/2 x 15 steel	6 x 15 light alloy	6 x 15 light alloy
Tyres	165 HR 15	185/70 VR 15	185/70 VR 15
Steering	rack and pinion	rack and pinion	rack and pinion
Capacities			
Engine	approx. 9.5 US quarts (15.8 imp pints) brand HD oil, APJ classification SD or SE summer SAE 30/winter SAE 20	approx. 9.5 US quarts (15.8 imp pints) brand HD oil, APJ classification SD or SE summer SAE 30/winter SAE 20	with oil cooler approx. 10.6 US quarts (17.6 imp pints) brand HD oil, APJ classification SD or SE summer SAE 30/winter SAE 20
Sportomatic	approx. 12.2 US quarts (20.2 imp pints) same grade as above	approx. 12.2 US quarts (20.2 imp pints) same grade as above	approx. 13.2 US quarts (22 imp pints) same grade as above
Gear box and final drive	approx. 3.2 US quarts (5.3 imp pints) SAE 90 hypoid	approx. 3.2 US quarts (5.3 imp pints) SAE 90 hypoid	approx. 3.2 US quarts (5.3 imp pints) SAE 90 hypoid
Fuel tank	16.4 US gal. (13.6 imp gal.) including 1.6 US gal. (1.3 imp gal.) reserve	16.4 US gal. (13.6 imp gal.) including 1.6 US gal. (1.3 imp gal.) reserve	16.4 US gal. (13.6 imp gal.) including 1.6 US gal. (1.3 imp gal.) reserve
Windshield washer reservoir	approx. 2.1 US quarts (3.5 imp pints)	approx. 2.1 US quarts (3.5 imp pints)	approx. 2.1 US quarts (3.5 imp pints)
Dimensions			
Wheelbase	2271 mm (89.4 in.)	2271 mm (89.4 in.)	2271 mm (89.4 in.)
Track, front	1360 mm (53.5 in.)	1372 mm (54.0 in.)	1372 mm (54.0 in.)
Track, rear	1342 mm (52.9 in.)	1354 mm (53.3 in.)	1354 mm (53.3 in.)
Length	4277 mm (168.4 in.)	4277 mm (168.4 in.)	4277 mm (168.4 in.)
Width	1610 mm (63.4 in.)	1610 mm (63.4 in.)	1610 mm (63.4 in.)
Height (unladen)	1320 mm (52.0 in.)	1320 mm (52.0 in.)	1320 mm (52.0 in.)
Ground clearance	150 mm (5.9 in.)	150 mm (5.9 in.)	150 mm (5.9 in.)
Turning diameter	10.7 m (35 ft. 2 in.)	10.7 m (35 ft. 2 in.)	10.7 m (35 ft. 2 in.)
Weights			
Unladen weight (DIN standard)	1050 kg (2315 lbs)	1075 kg (2370 lbs)	1075 kg (2370 lbs)
Permissible gross weight	1400 kg (3086 lbs)	1400 kg (3086 lbs)	1400 kg (3086 lbs)
Performance			
Manual gear box, (standard equipment)			
Maximum speed km/h (mph)	208 (129)	220 (137)	230 (143)
Acceleration 0 – 100 km/h (0 – 62 mph) (DIN unladen weight + 1/2 payload)	9.3 sec.	7.9 sec.	7.0 sec.

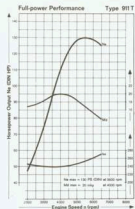


1360 with 5 1/2 J x 15 rims
* 1372 with 6 J x 15 rims



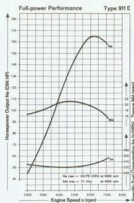
1342 with 5-1/2 J x 15 rims
* 1354 with 6 J x 15 rims





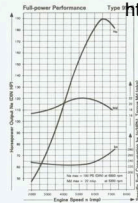
Porsche 911 T

The Porsche 911 T develops 135 HP (129 SAE net) at 5600 rpm. It accelerates from 0-100 km/h (0-62 mph) in 9.3 seconds and reaches a top speed of 208 km/h (129 mph). Its maximum torque is 20 mkg (166 ft-lbs) at 4000 rpm, with a compression ratio of 7.5 : 1.



Porsche 911 E

The Porsche 911 E develops 165 HP (157 SAE net) at 6200 rpm. It accelerates from 0-100 km/h (0-62 mph) in 7.9 seconds and reaches a top speed of 220 km/h (137 mph). Its maximum torque is 21 mkg (174 ft-lbs) at 4500 rpm, with a compression ratio of 8.0 : 1.



Porsche 911 S

The Porsche 911 S develops 190 HP (181 SAE net) at 6500 rpm. It accelerates from 0-100 km/h (0-62 mph) in 7.0 seconds and reaches a top speed of 230 km/h (143 mph). Its maximum torque is 22 mkg (181 ft-lbs) at 5200 rpm, with a compression ratio of 8.5 : 1.

