VW-Porsche Vertriebsgesellschaft mbH Sales Program 1971





The VW-PORSCHE-Vertriebsgesellschaft mbH presents its 1971 sales program

All model descriptions and specifications are based on German standards. For internal use only.

4 cylinders, 1679 cc, 80 HP 177 kph (110 mph) 6 cylinders, 1991 cc, 110 HP 201 kph (125 mph)

PORSCHE 911 T

6 cylinders, 2195 cc, 125 HP 205 kph (128 mph)

PORSCHE 911 E

6 cylinders, 2195 cc, 155 HP 220 kph (137 mph)

PORSCHE 911 S

6 cylinders, 2195 cc, 180 HP 230 kph (143 mph)

VW-PORSCHE

In the second year since its formation, the VW-Porsche Vertriebsgesellschaft mbH now has pleasure in presenting its model program. On the one hand, the 'classic' Porsche range with the 911 series which has proved so successful on road and track throughout the world; on the other hand, the VW-Porsche 914 models developed as a corporate effort by the Porsche and VW companies. Enlargement of the Porsche sports car program to include the new VW-Porsche 914 and 914/6 cars has been hailed

by experts and publicalike with enthusiasm. One year after their introduction, despite initial delivery delays, they have secured an impressive proportion of the market. The first test reports have confirmed the basic correctness of the new mid-engine layout. Notable sucesses in both national and international races and rallies demonstrate that the VW-Porsche is no mean competition vehicle. A triple victory in the overall category of the 'Marathon de la Route', an 86-hour endurance event on the German Nürburg Ring, provides ample evidence of both performance and reliability of the engine, chassis and all other components.

With the model ranges 911 and 914 the VW-Porsche Vertriebsgesellschaft mbH now offers a program in which every sports car enthusiast will find the car of his choice. This booklet is intended to give you an overall picture of the individual models which make up this year's sales program. It should be read by all members of the VW-Porsche sales organization, and will provide them with the information needed to offer detailed advice to all potential sports car buyers.

Concept of the VW-PORSCHE 914 model range

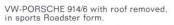
The VW-PORSCHE 914 models have been developed on the basis of a decision by Porsche and Volkswagen to build sports cars in a price category which would represent a natural complement to the existing and well-received vehicle range at the lower end of the price scale. The aim was to provide a design concept, together with craftsmanship and equipment quality, which would identify the new cars as genuine sports cars of the standard which has come to be expected from Porsche. Bearing in mind the younger purchasing group at whom this concept is primarily

directed, the VW-PORSCHE 914 models were planned and laid out as pure sports cars. It can well be imagined that the competition experience gained by Porsche played a decisive part in determining the character of the new development. Thus the mid-engine principle, taken over directly from racing-car practice, is an essential feature in the design of the VW-PORSCHE 914. Full-scale exploitation of the advantages of the mid-engine principle has meant sacrificing the usual emergency rear seats and storage space inside the car. However, the excellent weight distribution resulting from the central position of the center of gravity has ensured that the new design possesses quite outstanding handling and roadholding characteristics.

Seat width in the VW-PORSCHE 914 is in addition so generous that both driver and passenger have ample freedom of movement. The storage space is no longer located behind the seats but in two separate luggage compartments with a total capacity of 370 liters (13.1 cu.ft.), so that luggage space is quite comparable with that provided in the average compact sedan.

VW-Porsche 914 in closed Coupé form.





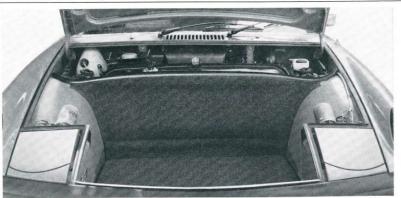




Safety roll bar with vertical rear window.

VW-PORSCHE 914 models have an all steel load-bearing two door bodyshell with integral safety roll bar and removable plastic roof. The body is welded to a floor/chassis assembly to form a single unit.

The streamlined shape of the VW-PORSCHE 914 is also smooth on the underside, and the resulting low drag resistance enables high road





14 models speeds to be reached with mooad-bearing derately sized and thus econo-

mical power units.

The body is divided into several compartments by transverse bulkheads which also contribute additional rigidity. The individual sections of the body are: front luggage compartment, fuel tank cell, passenger space, engine compartment, rear luggage compartment, rear luggage compart-

ment. The front and rear sections are arranged to deform easily and absorb energy in the event of violent impact. The passenger section forms a torsionally rigid safety cell within the body structure.

The rigid plastic roof used on the 914 is light in weight, absolutely weatherproof and easily removable in a few simple movements. It is attach-

Front luggage compartment, 160 liters (5.7 cu. ft.)

Rear luggage compartment, 210 liters (7.4 cu. ft.)

Rear luggage compartment with plastic roof in position.



ed to the windshield frame by two locking catches, with a further two catches at the rear on the roll bar. The roof can be easily removed and stored in the rear luggage compartment. In this position only a small amount of useful luggage compartment height is lost.

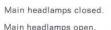
The high, domed windshield and the safety roll bar with vertical rear window ensure that the open car can be driven with a minimum of disturbing air currents and wind noise. In this way the VW-PORSCHE 914 models represent an ideal combination of the best features of a sports coupé and a convertible.

The low height of the midengine enables the waistline to be kept low in turn. Electrically operated pop-up main headlamps form a harmonious continuation of the elegant lines. Additional halogen headlamps are installed as standard in the front bumper. Wide shaped rubber strips above the bumpers provide protection against minor damage when maneuvering and parking.

The underside of the bodyshell is underseal protected before leaving the factory.

Both doors can be locked from outside with the ignition key, and from inside by operating safety lock buttons. The driver's door can also be locked from the outside without using the key. The safety button is simply pressed and the outside door handle kept raised while the door is shut.

Bumpers with shaped rubber protective strips and additional headlamps.









Flush outside door handle.

9149146

Equipment and trim

Clearly laid out instrument panel with nonglare dials.



Instruments

The VW-PORSCHE 914 is provided with the complete range of instruments needed for safe control and operation of a spors car.

Except for minor variations the same instruments are used on both VW-PORSCHE 914 and 914/6 models. The version with the more powerful engine calls for different dial calibrations on the speedometer and tachometer, and the windshield washer control, also differs in detail.

Styling and layout of the dashboard and instrument panel have been planned to meet the demand for rapid, effortless operation of all controls and a clear view of the instruments at all times without risk of confusion in critical situations.

The speedometer, with total and trip mileage odometers, and the transistorized tachometer both have large round dials with illumination of continuously variable intensity. They are located in the driver's direct field of view, and have anti-glare matt black faces.

The dial markings are matt white for easy reading and maximum visibility. A circular combined instrument dial houses warning lights for oil pressure, battery charge, handbrake (also oil temperature on 914/6) and the fuel gauge.

All knobs are recessed into the padded dashboard, and the levers made from flexible material. To prevent confusion each control is marked with a symbol indicating its function.



Equipment

The interior of the VW-PORSCHE 914 and its equipment are designed to ensure that both the driver and passenger of this sporting vehicle can cover long distances without fatigue in maximum safety.

Anatomically correct sportscar seats complete with head restraints provide good lateral location even when cornering fast, without restricting the freedom of movement essential for quick reactions in an emergency. The seats can be ordered with leatherette upholstery, or corduroy fabric with leatherette edge trim. The driver's seat has forward and back adjustment, as well as 4 different height and tilt positions. It can thus accomodate drivers of widely varying height or with differing driving styles. The passenger's seat back is permanently attached to the padded rear bulkhead of the car's interior, and an adjustable toeboard is provided to ensure that passengers of various heights are firmly braced during fast driving. Needle Loom (914) or pile type (914/6) carpets matching the trim color are provided.

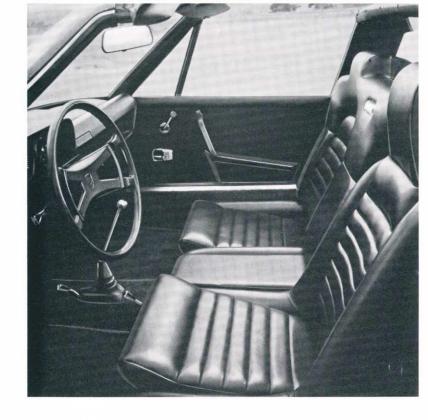
The VW-PORSCHE 914 models are equipped as standard with a wide range of equipment items calculated to satisfy the most demanding driver. for example three-point seat belt anchorages, combined armrests and door pockets, a passenger grab handle, padded sun visors, interior rear view mirror with anti-glare device and mounting bracket which yields on impact, cigar lighter with handlamp socket, safety padded pull-out ashtray, matt black windshield wipers with two speeds (914) or three speeds (914/6), a pneumatic (914) or electric (914/6) windshield washer, a headlamp flasher, all-round hazard warning flashers, 2 backup lights and additional halogen headlamps in the front bumper.

Heating and ventilation are separately and continuously variable. Both heater output and fresh air supply can be directed upwards or towards the feet. Fresh air flow can be boosted by a three-speed blower.

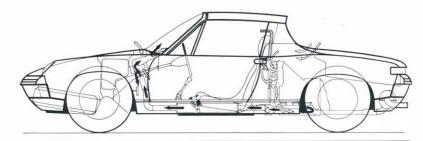
Forced stale air extraction from the car's interior is provided, with air outlets at the base of the safety roll bar.

(914/6), a
or electric
eld washer, a
er, all-round
flashers, 2
d additional
nps in the front

Luxury interior with ample room to move
tilation are
continuously
eater output



Heating and ventilation. White arrows: fresh air. Black arrows: warm air. Shaded arrows: forced air extraction.



914

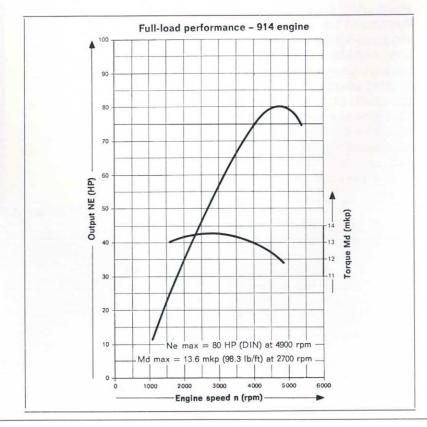
Output and performance

914 - performance

The air-cooled 1.7 liter 4-cylinder horizontally opposed engine of the VW-PORSCHE 914 develops 80 HP (DIN) at 4900 rpm. With it, the 900 kg (1985 lb) vehicle can reach a top speed of 177 kph (110 mph). It accelerates from 0 to 100 kph (0 to 62 mph) in 13 seconds,

and has a power/weight ratio of 11.2 kg/HP (90 HP/ton). Since torque is in excess of 12 mkp (86 lb/ft) over the wide engine speed range from 1800 to 4800 rpm, flexibility of the 914 engine is excellent even in dense city traffic or jams. Maximum torque of 13.6 mkp (98.3 lb/ft) is developed at 2700 rpm. In addition, the standard five speed gearbox is

capable of providing the correct gear ratio for any road situation.



kph	mph	sec.
0-40	0-25	3.0
0-60	0-37	5.8
0-80	0-50	9.0
0-100	0-62	13.0
0-120	0-75	19.4
0-140	0-87	27.2
0-160	0-100	43.2

Acceleration times, 914.

Performance graph, 914.

914/6

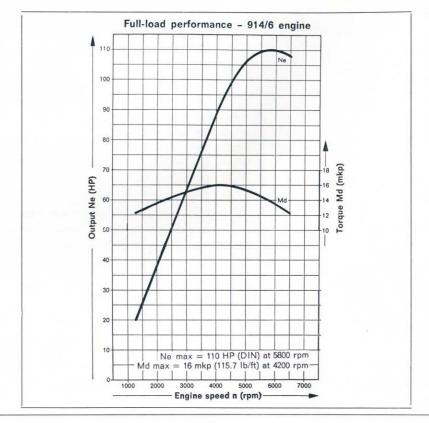
914/6 - performance

The VW-PORSCHE 914/6 6-cylinder model uses the wellproven air-cooled 2 liter Porsche engine. Output is limited to 110 HP (DIN). In this form the engine is equipped with 2 triple downdraft carburetors, and propels the 940 kg (2027 lb) weight of the car at a top speed of 201 kph (125 mph). Acceleration from 0 to 100 kph (62 mph) in 9.9 seconds, and a power/weight ratio of 8.5 kg/HP (119 HP/ton) are values which emphasize the sporting character of the VW-PORSCHE 914/6.

Since torque in excess of 14 mkp (101 lb/ft) is available

over the entire engine speed range from 2250 to 5750 rpm – with maximum torque of 16 mkp (115.7 lb/ft) reached at 4200 rpm – the flexibility of the VW-PORSCHE 914/6 6-cylinder satisfies the most demanding owner. The five-speed gearbox which is standard equipment makes it possible to drive the vehicle in a highly sporting manner if so desired.

The VW-PORSCHE 914/6 is available with the option of 'Sportomatic' selective automatic transmission.



kph	mph	sec.
0-40	0-25	2.6
0-60	0-37	4.8
0-80	0-50	7.0
0-100	0-62	9.9
0-120	0-75	14.0
0-140	0-87	19.2
0-160	0-100	26.5
0-180	0-112	37.0

Acceleration times, 914/6.

Performance graph, 914/6.

Roadholding

The chassis of the VW-PORSCHE 914 and 914/6 models uses independent suspension all round, the supension characteristics being matched in each case to the available performance. The result, in conjunction with the mid-engine position, is outstanding directional stability

and cornering power. Here the enormous experience gained by the House of Porsche in the design and construction of competition road vehicles can clearly be detected.

Front axle

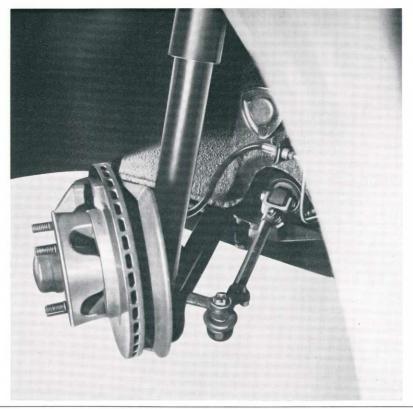
VW-PORSCHE models are equipped with the thoroughly tested space-saving front axle used on Porsche 911 cars. Despite a low hood line this enables a wide, deep luggage compartment to be incorporated at the front. The front wheels are located and suspended on transverse lower

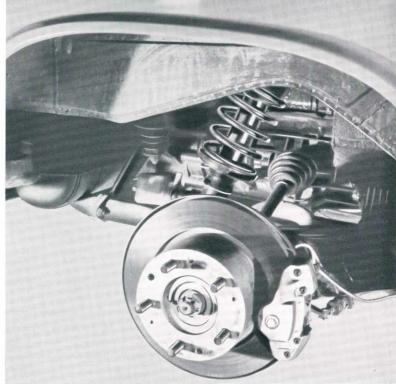
wishbones, with longitudinal torsion bars and shock absorber struts.

Rear axle

The rear wheels are carried on semi-trailing arms, and suspended by spring struts which combine a coil spring, a double-acting shock absorber and a Vulkollan hollow auxi-

liary spring. Power is transmitted to the rear wheels by 2 halfshafts with double universal joints.



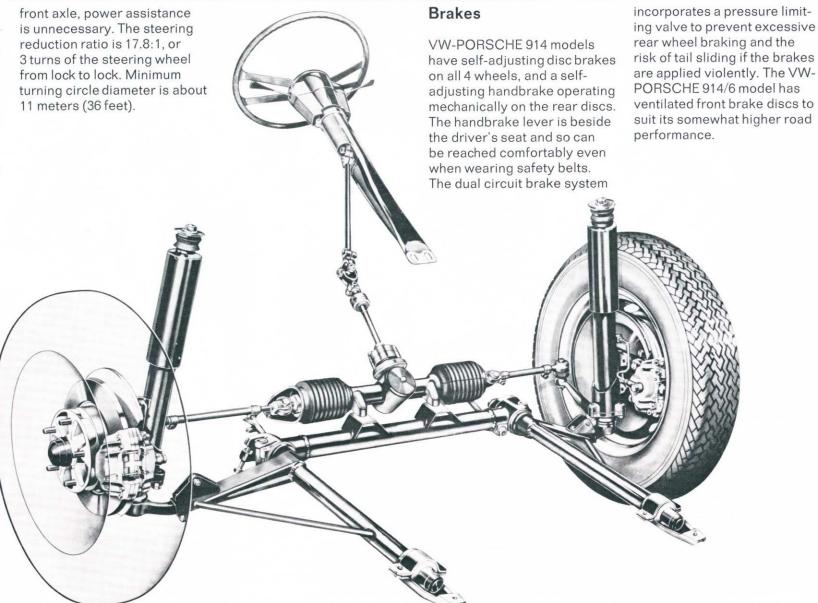


Front suspension, with ventilated disc brake (914/6).

Rear suspension, with large-area disc brake.

Steering

A three-piece steering column with no-maintenance universal joints and cranked center section operates the light-action direct rack und pinion steering, which enables the vehicle to be controlled with great accuracy and precision. Since the weight of the engine is no longer supported by the



Safety steering with three-piece steering column.

914

Reliability and economy

The VW-PORSCHE 914 has a 4-cylinder air-cooled horizontally opposed engine with Bosch electronically controlled fuel injection. It is installed in the mid-engine position in front of the rear axle, and combined with the clutch, five-speed gearbox and final drive to form a single unit.

On each side, a single light alloy cylinder head is bolted onto a pair of special gray cast iron cylinder barrels. The parallel overhead valves are driven by pushrods and rockers from a central camshaft. The drive to the camshaft is by helical pinions from the engine's crankshaft. Thanks to the horizontally opposed cylinder layout, the forged crankshaft with its four main bearings can be kept exceptionally short.

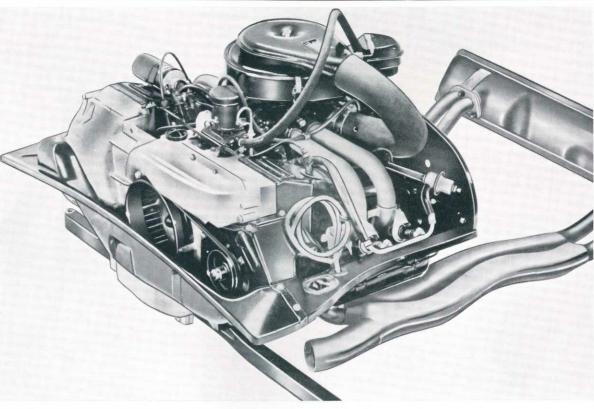
The engine is lubricated by pressure oil circulation, with a gear type pump driven from the camshaft. The oil is purified and cooled by a full flow oil filter and a plate type oil

cooler mounted in the airflow from the blower. The radial cooling air blower is mounted directly on the end of the crankshaft. Airflow is controlled automatically by a thermostat. The maximum flow rate at 4600 rpm is approx. 800 liters (14.1 cu.ft) per minute.

The oversquare 1.7 liter engine develops 80 HP (DIN) at 4900

rpm and has a fuel consumption, measured in accordance with the DIN standard test method, of 8 liters per 100 km (29 US mpg, 34.8 lmp. mpg). With a bore/stroke ratio of 90/66 mm and a mean piston speed at maximum road speed of 10.7 m/sec (2106 ft/min), the value is distinctly less than that achieved by the majority of sports cars.

The compression ratio of 8.2:1 makes the 914 engine capable of burning fuel of various grades. The well-tested design features of the 914 four cylinder power unit, together with the performance data recorded here, prove it to be a robust, economical unit capable of sustaining high speeds without ill effect.



914/6

The VW-PORSCHE 914/6 has an air-cooled 6 cylinder horizontally opposed engine with 2 triple downdraft carburetors. Like the engine of the 914 model, this unit is installed in the mid-engine position in front of the rear axle and combined with the clutch, five speed gearbox and final drive to form a single unit.

The engine is the well-proven 2 liter unit developing 110 HP which was used in basically similar form to power the 1969 Porsche 911 T.

The six cylinders are arranged in two horizontally opposed banks of three on the right and left of the crankcase, and have heavily finned bolted-on light alloy heads.

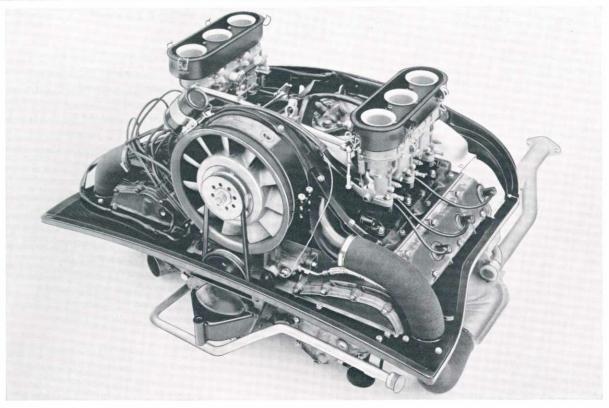
The valves are arranged in an inverted V layout in the heads, and operated by rockers direct from an overhead camshaft on each cylinder bank. The camshafts are driven by chains and intermediate gear pinions from the crankshaft.

The forged crankshaft has eight main bearings. Two triple barrel downdraft carburetors supply fuel-air mixture through short intake pipes to the combustion chambers of each cylinder. Dry sump lubrication ensures an even and uninterrupted supply of oil to all bearing surfaces even when the

engine is subjected to severe cornering forces at high speed. Lubricating oil is cleaned by passing through a full flow filter, and maintained at the correct temperature by means of a thermostatically controlled oil cooler. An alternator and the axial engine cooling blower are driven by Vee belt from a crankshaft pulley.

The engine is a pronounced oversquare design, with borestroke ratio of 80/66 mm, so that the mean piston speed of 12.7 m/sec (2502 ft/min) is distinctly below that usually reached by sports car power units. With fuel consumption according to the DIN standard test method of only 9 liters per 100 km (26 US mpg, 31.4 lmp. mpg), and a compression ratio

of 8.6:1, the 914/6 engine is capable of notable performance without losing its reputation as a troublefree, economical unit for reliable everyday service. This engine design has become known for its reliable power output and durability.



Active and passive safety

In the VW-PORSCHE 914 cars all the experience gained by both VW and PORSCHE during their safety research programs has been incorporated.

We refer to all design features or design-influenced characteristics which serve to prevent accidents as 'active' safety measures, whereas all design features intended to reduce the effect of accidents once they occur are described as 'passive' safety measures.

Active safety

VW-PORSCHE cars have a very low center of gravity, exceptionally good weight distribution with almost exactly 50% of the weight on the front wheels and 50% on the rear wheels, and a standard 5-speed gearbox to ensure that engine power can always be used to best effect and for maximum acceleration. These built-in reserves of roadholding ability and accelerating power help to reduce the element of danger when a tricky road situation is encountered, and provide increased security by cutting down overtaking times.

Even after repeated emergency applications from high speed, the four large-diameter disc brakes continue to operate at maximum efficiency. On the VW-PORSCHE 914/6 the increased available performance has been taken into account by the provision of ventilated front brake discs.

Dual brake circuits ensure adequate braking effect even if one circuit should fail.

A brake pressure limiting valve prevents overbraking at the

rear, so that the tail cannot swing wide if the rear wheels lock during a violent brake application.

The excellent straight-running characteristics of the VW-PORSCHE 914 models and their light action direct steering enable the car to be steered out of the way of sudden obstacles without loss of stability.

The sports seats with built-in head restraints are anatomically correct in shape, and provide good lateral support for fast corneirng without restricting the freedom of movement

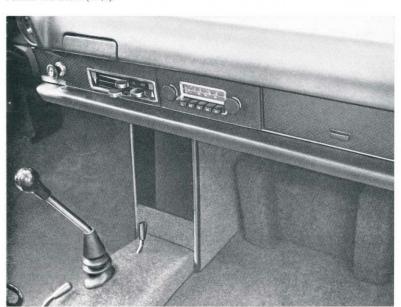
necessary for fast reactions in an emergency. The driver's seat has ample adjustment facilities to suit any driving position and thus prevent premature fatigue on long journeys. Draft-free forced stale air extraction from the car's interior is another factor helping to reduce driver fatigue by continuously changing the air supply.

Well placed controls and switches, clearly marked with symbols indicating their functions, clearly visible, non-glare instrument dials and halogen additional headlamps all make



their contribution to safe, relaxed driving. The two-speed (914) or three-speed (914/6) windshield wipers with their matt black wiper arms and the combined wiper-washer unit ensure clear vision at all times and thus adequate information concerning the movements of other traffic and the state of the road

Sports seats with head restraints. Padded dashboard (914/6).



Passive safety

VW-PORSCHE 914 models include a host of measures designed to reduce the effect of accidents – contributions to passive safety.

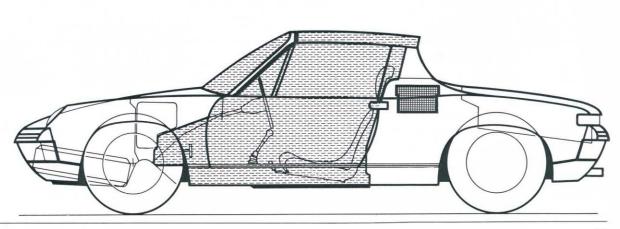
The safety windshield (914) and the laminated windshield (914/6), the three piece cranked steering column, the steering wheel with recessed boss and large-area padded horn push are all planned to give the driver and passenger maximum possible protection in the event of an accident.

The dashboard is padded at its upper and lower edges, and all switch knobs are either recessed or else made from resilient material. This will largely prevent minor injury in the event of a violent collision.

The fuel tank is located in an impact-proof zone behind the front luggage compartment and the spare wheel, and is scarcely likely to suffer damage in an accident.

The front and rear sections of the all-steel load bearing bodyshell are designed to deform easily and absorb impact energy, while the passenger compartment forms a torsionally rigid safety cell inside the main bodyshell. The safety roll bar which forms an integral part of the body spans the rear of the passenger compartment even when the roof is removed, and thus ensures the occupants of protection at all times.

Torsionally rigid safety passenger cell.



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Engine	4 cylinders, 1.7 liters, 80 HP, electronic fuel injection	6 cylinders, 2 liters, 110 HP, carburetors
Instruments	Tachometer 0-7000 rpm	Tachometer 800-8000 rpm
	Speedometer 0–200 kph (0–125 mph)	Speedometer 20–250 kph (10–160 mph)
	Ignition-starter switch on steering column	Oil temperature gauge Ignition-starter switch on dashboard, connected to steering column
		Twintone horns
	Safety glass windshield	Laminated safety glass windshield
		Hand throttle lever
	Two speed wipers	Three speed wipers
	Pneumatic windshield washer with push button in wiper switch on dashboard	Electric windshield washer with lever operated switch on steering column

OPTIONAL 'S' PACK for 914 The 'S' pack includes following items: Twintone horns. Safety roll bar covered with textured black leatherette. Bumpers chromium plated. Leather steering wheel. Pile type carpet. $5\frac{1}{2}$ J \times 15 steel rims. 165 SR 15 tubeless tires.

Safety roll bar painted same **Exterior equipment** color as rest of car

> Bumpers painted same color as rest of car

Needle loom (carpet)

Brakes Wheels

Tires

Interior equipment

 $4^{1}/_{2}$ J x 15 steel rims 155 SR 15 tubeless

Safety roll bar covered with

textured black leatherette

Bumpers chromium plated

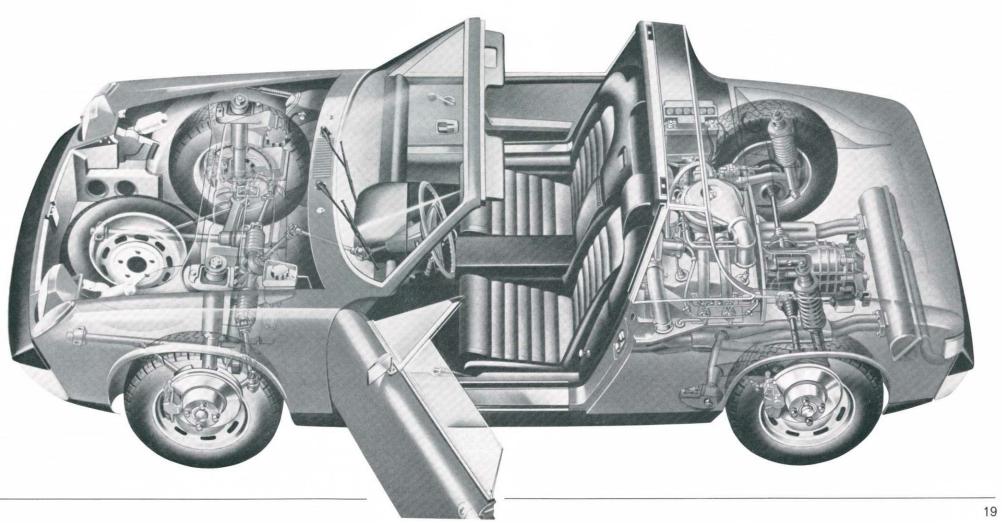
Leather steering wheel Pile type carpet

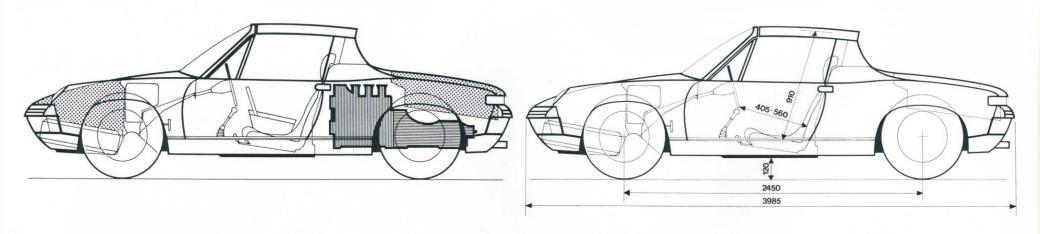
Ventilated front discs $5\frac{1}{2}$ J x 15 steel rims

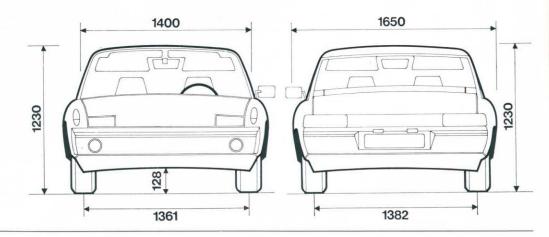
165 HR 15 with tube

18

Sectional view of 914, showing mid-engine position, transmission and luggage compartments.







VW-PORSCHE 914 — dimensions in mm.

	VW-PORSCHE	914	914/6	
Engine	Number of cylinders Bore x stroke Displacement Compression ratio Output (DIN) Max. torque Mean piston speed Output per liter	4 90 mm (3.54 in.) x 66 mm (2.6 in.) 1679 cc (102.4 cu.in.) 8.2:1 80 HP at 4900 rpm 13.6 mkp (98.3 lb/ft) at 2700 rpm 10.7 m/sec (2106 ft/min.) 48 HP	6 80 mm (3.15 in.) x 66 mm (2.6 in.) 1991 cc (121.5 cu.in.) 8.6 : 1 110 HP at 5800 rpm 16 mkp (115.7 lb/ft) at 4200 rpm 12.8 m/sec (2502 ft/min.) 55 HP	
Engine design	Layout Cylinders Cylinder heads Valve arrangement Valve operation Camshaft drive Cooling blower drive Lubrication Fuel supply Mixture preparation	Air cooled four-stroke spark ignition, he Gray cast iron Light alloy Overhead, parallel Central camshaft, pushrods and rockers Gear pinions Mounted direct on crankshaft Forced circulation Electric fuel pump Electronic fuel injection	orizontally opposed Gray cast iron Light alloy Overhead, V layout Rockers, 1 overhead camshaft per cylinder bank Chain Vee belt (also driving generator) Dry sump Electric fuel pump 1 triple carburetor per cylinder bank	
Electrical equipment	Alternator Battery Ignition	700 Watt 12 V 45 Amp/hr Battery and coil	770 Watt 12 V 45 Amp/hr High tension battery-capacitor	
Transmission	Engine position Clutch Manual gearbox Number of speeds Rear axle ratio (number of teeth)	Mid-engine, in front of rear axle Single dry plate Porsche baulk synchromesh 5 forward, 1 reverse 4.429:1 (7:31)		
Chassis and suspension	Frame Front suspension Front springs Rear suspension Rear springs Shock absorbers Foot brake Handbrake Brake disc. extl. dia. front/rear Effective friction area (foot brake) Rims Tires Steering	Welded pressed steel box section fram Wishbones and shock absorber struts Torsion bars Semi-trailing arms Coil springs, hollow rubber auxiliary spressor, double-acting Dual circuit, discs on all 4 wheels Mechanical, operating on rear brake di 281 mm (11 in.) / 282 mm (11.1 in.) 180 sq.cm (27.9 sq.in.) 4 1/2 J x 15 steel 155 SR 15 tubeless ZF rack and pinion	ventilated front discs	
Capacities	Engine oil Fuel tank Windshield washer reservoir	3.5 liters (3.7 US qts, 6.2 lmp. pints) 62 liters (16.4 US gal., 13.6 lmp. gal.) approx. 2.5 liters (2.6 US quarts, 4.4 lmp. pints); pneumatic	9 liters (9.5 US qts, 15.8 lmp. pints) 62 liters (16.4 US. gal., 13.6 lmp. gal.) approx. 2.8 liters (3 US quarts, 4.9 lmp. pints); electric pump	
Dimensions	Wheelbase Track, front Track, rear Length Width Height (unladen) Ground clearance (laden) Turning circle Luggage compartments	2450 mm (96.8 in.) 1337 mm (52.6 in.) 1374 mm (54.1 in.) 3985 mm (156.9 in.) 1650 mm (65 in.) 1230 mm (48.4 in.) 120 mm (4.7 in.) 11 meters (36 feet) front 160 liters (5.7 cu. ft.), rear 210 lit	2450 mm (96.8 in.) 1361 mm (53.6 in.) 1382 mm (54.4 in.) 3985 mm (156.9 in.) 1650 mm (65 in.) 1240 mm (48.8 in.) 128 mm (5 in.) 11 meters (36 feet)	
Weights	Unladen weight (to DIN standard) Permissible gross weight Permissible axle loads front/rear	900 kg (1984 lb) 1220 kg (2690 lb) 650 kg (1433 lb) / 650 kg (1433 lb)	940 kg (2072 lb) 1260 kg (2778 lb) 650 kg (1433 lb) / 700 kg (1543 lb)	
Performance	To speed Power/weight ratio (to DIN Standard) Acceleration 0–100 kph (0–62 mph) at DIN unladen weight + ½ payload Fuel consumption (DIN standard test)	177 kph (110 mph) 11.2 kg/HP (90 HP/ton) 13 sec. approx. 8 liters per 100 km (29 US mpg, 34.8 lmp. mpg)	201 kph (125 mph) 8.5 kg/HP (119 HP/ton) 9.9 sec. approx. 9 liters per 100 km (26 US mpg, 31.4 lmp. mpg) Super grade fuel	21

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Concept of the PORSCHE 911 model range

PORSCHE 911 T

2.2 liters, 6 cylinders 125 HP, carburetors 205 kph (128 mph), 4-speed gearbox

PORSCHE 911 E

2.2 liters, 6 cylinders 155 HP, fuel injection 220 kph (137 mph), 5-speed gearbox

PORSCHE 911 S

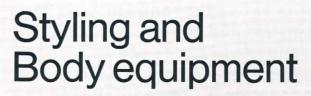
2.2 liters, 6 cylinders 180 HP, fuel injection 230 kph (143 mph), 5-speed gearbox

Vehicles in the 911 model range may be considered as fast and luxurious touring cars with a distinct sporting accent. All three models share the same basic technical conception. Location of the air cooled horizontally opposed engines at the rear provides the best possible compromise between good aerodynamic form. available space and the demands of safety for the occupants. The dual circuit brake system operating on ventilated discs at all wheels, and the all-round independent suspension are features which, like the horizontally opposed six-cylinder engine design, have withstood repeated arduous tests in competition events.

The three models in the range, the 911 T, E and S, cover the complete scale of available equipment specifications and power outputs, and are offered either with Coupé body styling or as 'Targa' models for those who prefer an open car.

The technical specification of any model can be extended by a range of options; from the wide selecition available we would draw special attention to the 'Sportomatic' selective automatic transmission which can be specified on the 911 T and 911 E models.

Porsche 911 T Coupé with comfort pack.





PORSCHE 911 E Targa



9117 9117 9118

Vehicles in the 911 model range feature the characteristic Porsche streamlined styling. This is not merely designed for striking or fashionable effect, but is governed by pure engineering considerations. The bodyshell, including the underside, is as smooth as possible for uninterrupted airflow, and the resulting low drag coefficient enables high road performance to be obtained from sensibly dimensioned and thus economical power units.

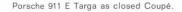
The load bearing all-steel bodyshell is welded to a frame and floor panel assembly to form a single unit.

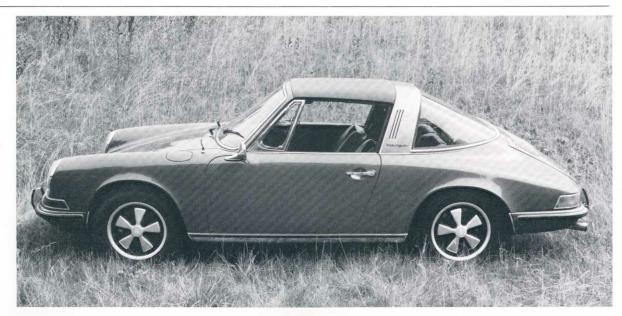
The passenger compartment takes the form of a torsionally rigid safety cell protected by front and rear sections designed to absorb impact energy. The front fenders are bolted on for ease of replacement, and all electrical wiring, control cables and linkage is fully enclosed within the center tunnel of the floor panel assembly.

The underbody leaves the factory with full PVC underseal.

All 911 models are supplied with laminated front windshield, safety glass side and rear windows, electrically heated rear window, electric windshield washer, halogen headlamps, backup lights and emergency hazard warning flashers.

The open-top 'Targa' version has a safety roll bar which cuts down drafts and wind noise to a great extent.







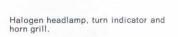
Porsche 911 E Targa with roof removed.



Porsche 911 S Coupé.

In contrast to last year's model program the standard equipment of the Porsche 911 S is now similar to that of the Porsche 911 E. The only major difference is the provision of sports seats as standard equipment.





Rear light, backup light, turn indicator and reflector.



911 T 911 F 911 S

Equipment and trim

Instruments

The layout of the interior and the instrument panel on PORSCHE 911 models, is planned to meet the demand for rapid, effortless operation of all controls and easy reading of the instruments.

All instrument dials are nonglare, and placed within the driver's field of view. Without removing his hands from the steering wheel rim, the driver can reach 2 combination switches on the steering column which operate the three-speed wipers, windshield washer, turn indicators, headlamp flasher and high/low beam headlamp switch. The instrument panel comprises tachometer, speedometer, clock, fuel gauge, oil thermometer, oil pressure gauge (911 E and S) and oil level indicator (911 E and S). The non-glare dashboard is padded on its upper and lower edges.



Clearly laid out instruments and controls. (911 T with comfort pack)

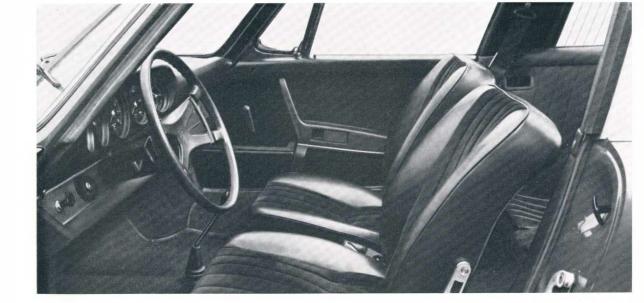
Interior equipment

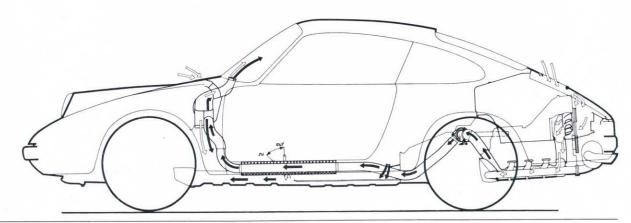
The passenger compartment is of ample size to provide both driver and passenger with unrestricted freedom of movement. On short journeys additional seating accommodation is provided by the rear emergency seats. If the rear seat backs are folded forward a flat surface is obtained which can be used to carry extra items of luggage.

The front seats are of anatomically correct pattern and are mounted low down and close to the car's center of gravity. The 'bucket' type seats provide the occupants with adequate lateral support for fast driving. Fore and aft seat adjustment and seat back angle variation ensure comfort in a variety of driving positions and allow the passenger to relax on long journeys.

The specification includes seat belt anchorages, a hand throttle lever, draft-free ventilation and stale air extraction and separate continuously variable heating and fresh air systems with a three speed blower.

Generous interior space.





Heating and ventilation. White arrows: fresh air. Black arrows: warm air.

911 T

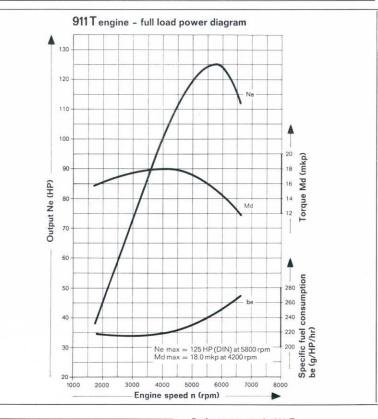
Output and performance

911 T – performance

The 2.2 liter horizontally opposed engine of the 911 T develops 125 HP at 5800 rpm. The car's power-weight ratio is thus only 8.7 kg/HP (116.5 HP/ton), and no more than 10 seconds are needed to accelerate from 0 to 100 kph (62 mph). Maximum torque of 18 mkp (130.2 lb/ft) is developed at 4200 rpm, and top speed is 205 kph (128 mph). The SPORTOMATIC selective automatic transmission can be supplied as an option, as well as the 5-speed gearbox.

911 E - performance

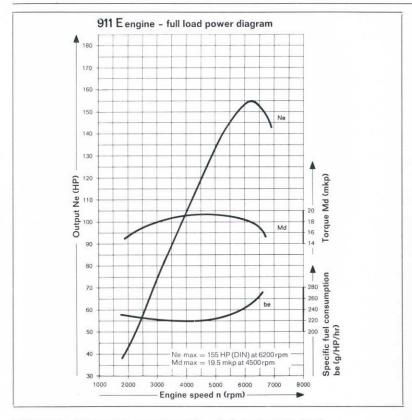
The Porsche 911 E can reach a top speed of 220 kph (137 mph). Maximum engine power of 155 HP is developed at 6200 rpm, and maximum torque, amounting to 19.5 mkp (140.5 lb/ft), at 4500 rpm. With its power-weight ratio of only 6.9 kg/HP (147.3 HP/ton) the 911 E can accelerate from 0 to 100 kph (0-62 mph) in 8 seconds. The standard 5-speed gearbox can be replaced if desired by the optional SPORTOMATIC selective automatic transmission.



kph	mph	sec
0-40	0-25	2.4
0-60	0-37	4.6
0-80	0-50	6.9
0-100	0-62	10.0
0-120	0-75	13.6
0-140	0-87	18.5
0-160	0-100	25.0
0-180	0-112	37.5

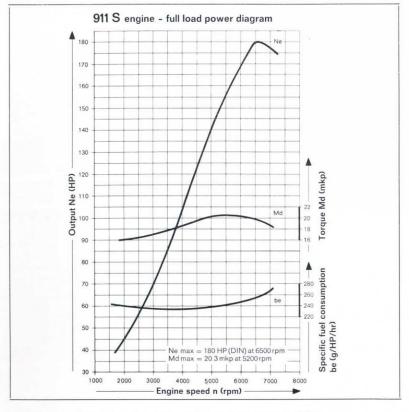
Performance graph, 911 T. Acceleration times, 911 T.

911 F 911 S



kph	mph	sec
крп	прп	360.
0-40	0-25	2.2
0-60	0-37	4.0
0-80	0-50	5.8
0-100	0-62	8.0
0-120	0-75	11.2
0-140	0-87	14.7
0-160	0-100	20.0
0-180	0-112	26.7

Performance graph, 911 E. Acceleration times, 911 E.



mph	sec
0–25	2.0
0-37	3.2
0-50	5.5
0-62	7.5
0-75	10.6
0-87	13.8
0-100	18.2
0-112	23.8
	0-37 0-50 0-62 0-75 0-87 0-100

Performance graph, 911 S. Acceleration times, 911 S.

911 S - performance

The 911 S has a 2.2 liter horizontally opposed engine devel-

oping 180 HP at 6500 rpm. Maximum torque of 20.3 mkp (146.8 lb/ft) is reached at 5200 rpm. The exceptionally high power-weight ratio of 6.0 kg/HP (169 HP/ton) results in acceleration from 0–100 kph (0-62 mph) in only 7.5 seconds. Top speed is 230 kph (143 mph).

Correctly chosen overall gear ratios ensure that the top speed can be maintained continuously if so desired.

The 'E' power unit is designed to develop its power at quite low engine speeds, but the 'S' engine does not reach maximum output until the engine is turning over much faster (about 5500 rpm). In other words, the 911 S engine is tuned to a certain extent for competition driving, whereas the 'E' power unit has been designed for the needs of day to day road use.

All six cylinder units, including that installed in the VW-PORSCHE 914/6, have high tension battery/capacitor ignition. 911 E and 911 S models have the Porsche 5-speed gearbox as standard, the 911 T and E can be supplied with the optional Porsche Sportomatic transmission.

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Chassis

The chassis with its independent wheel suspension all round is also the same in principle on all PORSCHE 911 models. Detail technical modifications are made purely to suit the varying performance characteristics of each model.

Front axle

The independently sprung front wheels are located by lower wishbones in conjunction with shock absorber struts. The springing medium is an adjustable longitudinal torsion bar.

On the 911 E both springing and damping functions are carried out by a hydropneu-

matic strut with automatic self-leveling action.

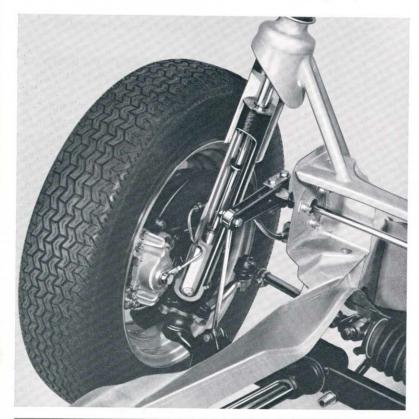
The 911 S is provided with an anti-roll stabilizer.

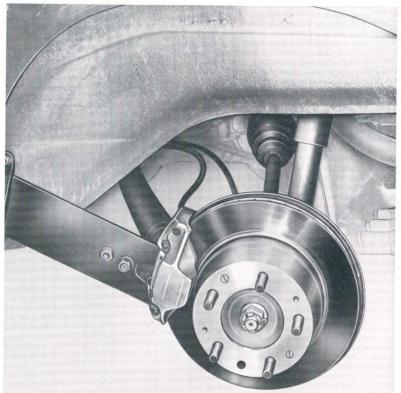
Rear axle

The independently sprung wheels are carried on semi-trailing arms and suspended on adjustable transverse tor-

sion bars. Damping is by means of double acting hydraulic shock absorbers.

Drive is taken to the rear wheels through double universal joint halfshafts. All joints are maintenance free. The 911 S has an additional antiroll stabilizer.



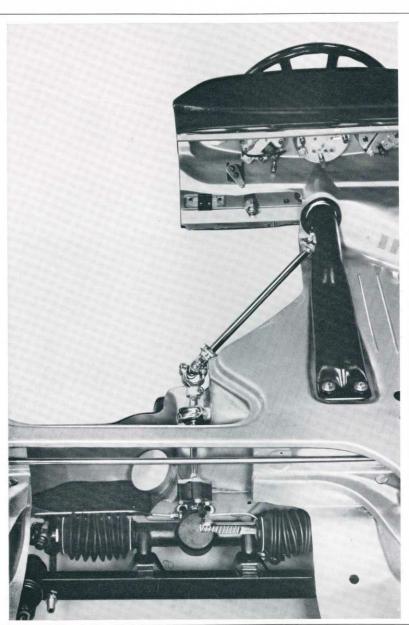


Front suspension.

Rear suspension.

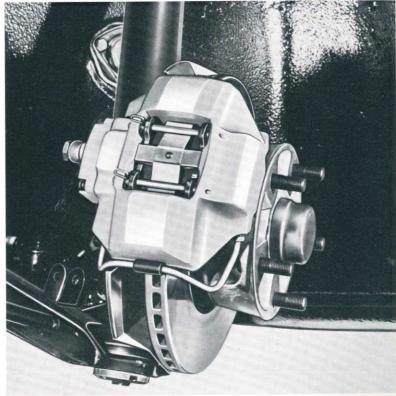
Steering

For reasons of safety the steering column of the rack and pinion steering gear is in three sections and cranked to provide impact protection. No-maintenance universal joints are used to connect the sections together. In conjunction with a four spoke steering wheel with recessed boss and large area padded horn push, the system offers the driver maximum possible collision protection.



Brakes

All 911 models employ a dual circuit brake system operating on 4 ventilated brake discs. Automatic brake pad wear compensation is incorporated, and the handbrake operates separate drum brakes combined with the rear discs.



Safety steering with three-section column. Ventilated brake discs.

9117

Reliability and economy

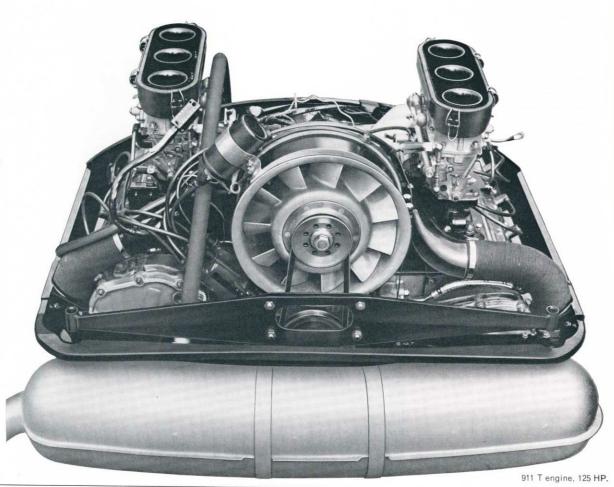
The air cooled six cylinder power units installed in the 911 model range are of basically identical engineering design. but in contrast to the similar unit used in the VW-Porsche mid-engined sports car they are installed behind the rear axle rather than in front. This makes greater interior space available, so that 2 additional emergency seats can be provided. The six cylinders are horizontally opposed in two banks of three on either side of the crankcase, and have bolted-on heavily finned light alloy heads. The overhead valves are arranged in inverted V pattern and operated by rockers from a single overhead camshaft on each cylinder bank. The forged crankshaft has eight main bearings.

Dry sump lubrication ensures that all bearing points receive

a steady supply of oil even during fast cornering. The lubricating oil passes through a full-flow filter and a thermostatically controlled oil cooler.

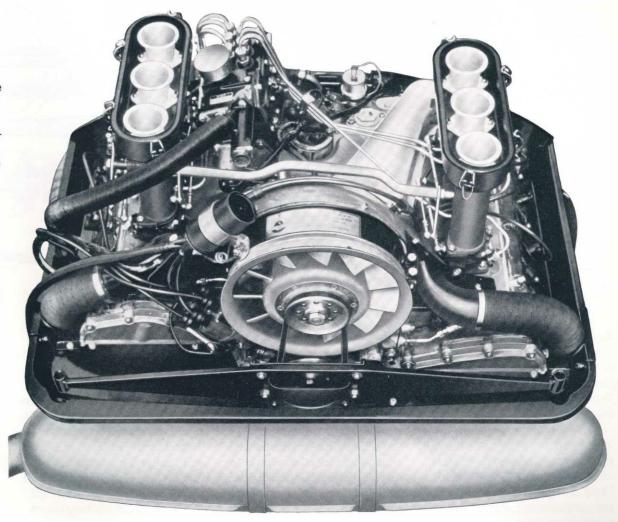
The alternator and axial engine cooling blower are driven by Vee belt from the crankshaft.

Unlike the 911 E and S engines, the 125 HP unit employed in the 911 T has two triple barrel downdraft carburetors which supply mixture to the engine through short intake pipes. The relatively limited output of this engine makes it a willing and undemanding power unit for this end of the 911 model range. Its power output and torque curves are smoother and less 'peaky' than those of the other engine types.



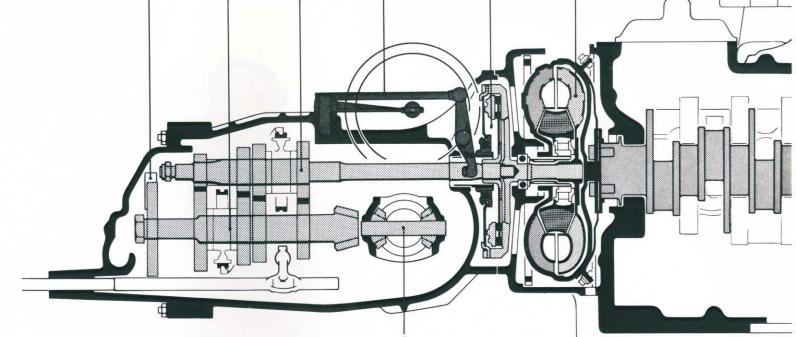
911 F 911 S

In contrast to the 911 T unit, the 911 E and S engines are supplied with fuel-air mixture by a mechanical manifold fuel injection system. In addition to the higher output of 155 HP (911 E) or 180 HP (911 S) thus made possible, the Bosch fuel injection system has the following advantages: reduced fuel consumption when the car is driven at varying speeds, better pulling power in all engine speed ranges and less sensitivity to changes in air temperature and pressure. The 911 S has in addition a second oil cooler.



914 911

Sportomatic



- 1 Parking lock.
- 2 4-speed manual gearbox.
- 3 Gearshift clutch linkage.
- 4 Gearshift clutch.
- 5 Hydraulic torque convertor.
- 6 Differential.

As an optional extra the standard manual gearbox on the 911 T, 911 E and 914/6 models can be replaced by the Porsche Sportomatic transmission.

This selective automatic transmission enables the driver to shift gears as and when he likes. But gear shifts are no longer essential. When forced

to 'swim with the stream' in heavy traffic no advantage is gained from continual operation of the gear lever, and in the long run gear shifting can become tedious in such situations. The Sportomatic transmission combines two well known and tested design principles: a modern hydrodynamic drive train, usually referred to as a hydraulic torque con-

vertor, and the Porsche allsynchromesh four speed gearbox with parking lock. The torque convertor operates as a starting clutch, provides continuously varying torque multiplication of the force transmitted by the engine, and thus adapts itself automatically to any driving situation. The shift clutch necessary to interrupt the drive when shifting gears also disengages automatically as soon as the driver starts to move the gear lever.

The high efficiency of the hydraulic torque convertor, in conjunction with the fast gear shifts possible with the Sportomatic, enable almost the same road performance to be achieved as in a Porsche with conventional clutch and gearbox.

The Sportomatic shows its superiority in heavy traffic, when hill climbing and on icy roads, where accidental or uncontrolled jerking movements when gear shifting or surges of power at the rear wheels can be quite dangerous.

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What are the differences between the **PORSCHE** 911T, E and S models?

Engine output 125 HP		155 HP	180 HP	
Top speed	205 kph (128 mph)	220 kph (137 mph)	230 kph (143 mph)	
Mixture supply	Carburetors	Fuel injection	Fuel injection	
Transmission	4-speed gearbox, 5-speed gearbox or Sportomatic optional	5-speed gearbox, Sportomatic optional	5-speed manual gearbox	
Front axle	Wishbones, shock absorber struts, torsion bar springs	Wishbones, self-levelling spring/shock absorber struts	Wishbones, shock absorber struts, torsion bar springs, stabilizer	
Rear axle	Semi-trailing arms, torsion bars, shock absorbers	Semi-trailing arms, torsion bars, shock absorbers	Semi-trailing arms, torsion bars, shock absorbers, stabi- lizer	
Brake calipers	Front and rear gray cast iron	Front light alloy, rear gray cast iron	Front light alloy, rear gray cast iron	
Wheels	$5^{1/2} \times 15$ steel rims	6 x 15 light alloy rims	6 x 15 light alloy rims	
Tires	165 HR 15	185/70 VR 15	185/70 VR 15	
Interior equipment	Needle loom carpet	Velour carpet, more complete interior equipment, leather covered steering wheel oil level and pressure gauges	Velour carpet, more complete interior equipment, leather covered steering wheel oil level and pressure gauges Sporty Seats	
Exterior equipment		Shaped rubber strips on bum- pers: chrome door sills	Shaped rubber strips on bumpers; chrome door sills	

911 T 911 F 911 S

Active and passive safety

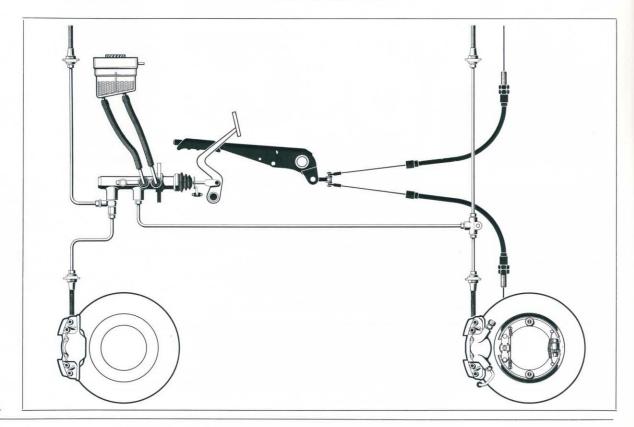
Active safety

PORSCHE 911 cars have a very low center of gravity and good front/rear weight distribution, with 42 % on the steered and 58 % on the driven wheels. Excellent roadholding is the result. Sparkling acceleration from 0 to 100 kph (0 to 62 mph) in 10 seconds (911 T), 8 seconds (911 E) or 7.5 se-

conds (911 S) helps to take the risk out of potentially tricky situations and cut down overtaking times.

The 4 generously dimensioned disc brakes (all with ventilated discs for best possible cooling) lose none of their efficiency even after repeated heavy applications, since they incorporate automatic pad wear

compensation. The dual circuit brake system ensures that adequate braking force is always present should one circuit fail.



Dual circuit brake system.

Accurate straight-ahead running, outstanding roadholding and light-action, direct steering make it possible for the driver to react to a sudden obstruction by a violent movement of the steering wheel, without risk that the car will start to slide. Anatomically correct seats provide good lateral support for fast cornering, reduce fatigue and ensure the freedom of movement essential for fast reaction in an emergency. When the vehicle is moving stale air is extracted continuously from the interior. another measure useful in combating fatigue. Easily operated controls and levers, each marked with a symbol indicating its function, ensure that the correct control is operated instinctively and thus enable the driver's attention to be concentrated on the road. Nonglare instrument dials and halogen headlamps aid safety when driving at night. The three-speed wipers are combined with a windshield washer to quarantee clear vision under all conditions and full information regarding the movements of other vehicles.

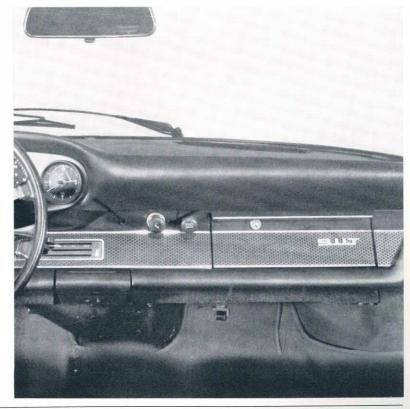
Passive safety

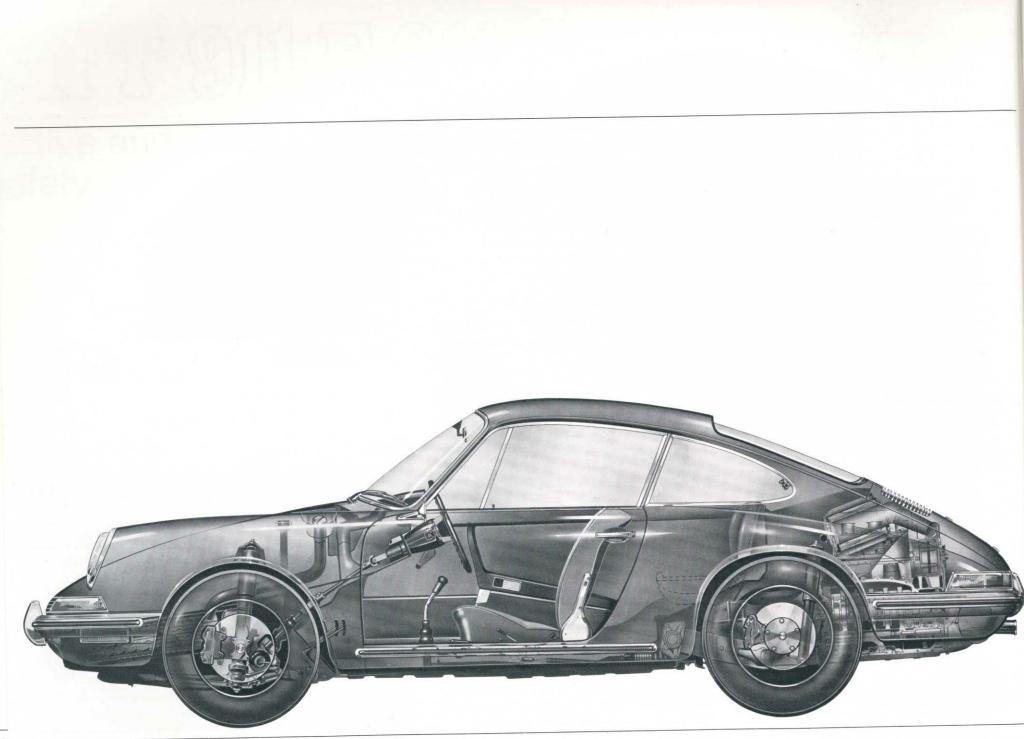
Numerous measures to reduce the after-effects of an accident have be introduced on the 911 model range:

Impact energy is to a large extent absorbed directly by the all-steel bodyshell. This is fully self-supporting and encloses the rigid central passenger compartment. The front section, in contrast, comprises a crushable energyabsorbing zone. On the 'Targa' versions the safety roll bar ensures that rigidity and occupant safety is just as high as on the Coupé. It is worth mentioning that the emergency hazard warning system has separate circuits for the front and rear flashers, so that in the event of a nose to tail collision damaging one end of the car the flashers at the other end continue to function.

To protect the driver and occupants the designers of the 911 range have provided a three-piece cranked steering column, a steering wheel with recessed boss, a padded dashboard with deeply recessed instruments, smooth surfaced padded or flexible control knobs and a laminated safety glass front windshield.

Padded dashboard with deeply recessed instruments.





	COUPE / TARGA	911 T	911 E	911 S
Engine	Number of cylinders Bore / stroke Displacement Compression ratio Output (DIN) Max. torque Mean piston speed Specific output per liter	6 84/66 mm (3.31/2.6 in.) 2195 cc (133.9 cu.in.) 8.6:1 125 HP at 5800 rpm 18 mkp (130.2 lb/ft) at 4200 rpm 12.7 m/sec (2500 ft/min) 57 HP	6 84/66 mm (3.31/2.6 in.) 2195 cc (133.9 cu.in.) 9.1:1 155 HP at 6200 rpm 19.5 mkp (140 lb/ft) at 4500 rpm 13.6 m/sec (2677 ft/min) 70 HP	6 84/66 mm (3.31/2.6 in.) 2195 cc (133.9 cu.in.) 9.8:1 180 HP at 6500 rpm 20.3 mkp (146.8 lb/ft) at 5200 rpm 14.3 m/sec (2915 ft/min) 82 HP
Engine design	Layout Cylinders Cylinder heads Valve position Valve operation Camshaft drive Crankshaft Cooling blower drive Lubrication Fuel supply Mixture supply	Air cooled four cycle horizontally opposed Gray cast iron Light alloy Overhead, inverted V By rockers from single overhead camshaft for Chain 8 main bearings By Vee belt, combined with drive to generator Dry sump Electric fuel pump 2 triple barrel downdraft carburetors, 1 per cylinder bank	Gray cast iron with light alloy cooling fins Light alloy Overhead, inverted V each cylinder bank Chain 8 main bearings Dry sump Electric fuel pump Mechanical fuel injection into intake manifolds	Light alloy Overhead, inverted V Chain 8 main bearings Dry sump Electric fuel pump Mechanical fuel injection into intake manifolds
Electrical system	Generator Batteries Ignition	770 Watt alternator 2 x 12 V 36 Amp/hr High tension battery and capacitor ignition sys	770 Watt alternator 2 x 12 V 36 Amp/hr stem	770 Watt alternator 2 x 12 V 36 Amp/hr
Transmission Final driv	Engine position Clutch Manual shift gearbox Number of speeds re ratio (number of teeth crownwheel / pinion)	At rear, behind rear axle Single dry plate Porsche baulk synchromesh 4 forward, 1 reverse 4.429:1 (7/31)	5 forward, 1 reverse	5 forward, 1 reverse
Chassis and suspension	Frame Front suspension Front springs Rear suspension Rear springs Shock absorbers Foot brake Handbrake Brake disc diameter front / rear Effective friction area (foot brake) Rims Tires Steering	Welded pressed steel box section frame, weld Wishbones and shock absorber struts Torsion bars Semi-trailing arms Transverse torsion bars Double acting telescopic Dual circuit disc brakes with ventilated discs Operates mechanically on rear wheels (duo-se 282/290 mm (11.1/11.4 in.) 210 sq.cm (32.6 sq.in.) 51/2 J x 15 steel 165 HR 15 ZF rack and pinion	Wishbones and spring struts Hydropneumatic spring struts Semi-trailing arms ervo drums) 282/290 mm (11.1/11.4 in.) 257 sq.cm (39.8 sq.in.) 6 J x 15 light alloy 185/70 VR 15	Wishbones and shock absorber struts Torsion bars with stabilizer Semi-trailing arms additional stabilizer 282/290 mm (11.1/11.4 in.) 257 sq.cm (39.8 sq.in.) 6 J x 15 light alloy 185/70 VR 15
Capacities	Engine oil Fuel tank Windshield wash reservoir	approx. 9 liters HD (9.5 US quarts, 15.8 lmp. pints) 62 liters (16.4 US gal, 13.6 lmp. gal) including 6 liters (1.6 US gal, 1.3 lmp. gal) rese approx. 2 liters (2 US quarts, 3.5 lmp. pints) wit	approx. 9 liters HD (9.5 US quarts, 15.8 lmp. pints) 62 liters (16.4 US gal, 13.6 lmp. gal) erve th electric pump	approx. 10 liters HD (10.6 US quarts, 17.6 lmp. pints) 62 liters (16.4 US gal, 13.6 lmp. gal)
Dimensions	Wheelbase Track, front Track, rear Length Width Height (unladen) Ground clearance (laden) Turning circle Luggage compartment	2268 mm (89.3 in.) 1362 mm (53.6 in.) 1343 mm (52.9 in.) 4163 mm (163.9 in.) 1610 mm (63.4 in.) 1320 mm (52 in.) 150 mm (52 in.) approx. 10.7 m (35 ft 2 in.) approx. 200 liters (7.1 cu.ft)	2268 mm (89.3 in.) 1374 mm (54.1 in.) 1355 mm (53.3 in.) 4163 mm (163.9 in.) 1610 mm (63.4 in.) 1320 mm (52 in.) 150 mm (5.9 in.) approx. 10.7 m (35 ft 2 in.) approx. 200 liters (7.1 cu.ft)	2268 mm (89.3 in.) 1374 mm (54.1 in.) 1335 mm (53.3 in.) 4163 mm (163.9 in.) 1610 mm (63.4 in.) 1320 mm (52 in.) 150 mm (5.9 in.) approx. 10.7 m (35 ft 2 in.) approx. 200 liters (7.1 cu.ft)
Weights	Unladen weight (DIN standard) Permissible gross weight Permissible axle load, front rear Trailer load, braked / unbraked	1020 kg (2248 lbs) 1400 kg (3086 lbs) 600 kg (1323 lbs) 840 kg (1852 lbs) 600 kg (1323 lbs) / 480 kg (1058 lbs)	1020 kg (2248 lbs) 1400 kg (3086 lbs) 600 kg (1323 lbs) 840 kg (1852 lbs) 600 kg (1323 lbs) / 480 kg (1058 lbs)	1020 kg (2248 lbs) 1400 kg (3086 lbs) 600 kg (1323 lbs) 840 kg (1852 lbs) 600 kg (1323 lbs) / 480 kg (1058 lbs)
Performance	Top speed Power/weight ratio (DIN standard) Acceleration 0—100 kph (0—62 mph) at DIN unladen weight plus half payload Fuel consumption (DIN standard test method)	205 kph (128 mph) 8.7 kg/HP (116.5 HP/ton) 10.0 sec. 9 liters per 100 km (26 US mpg, 31.4 lmp. mpg); premium (Super) grade fuel	220 kph (137 mph) 6.9 kg/HP (147.3 HP/ton) 8.0 sec. 9.5 liters per 100 km (24.8 US mpg, 29.8 lmp. mpg); premium (Super) grade fuel	230 kph (143 mph) 6.0 kg/HP (169 HP/ton) 7.5 sec. 10.2 liters per 100 km (23 US mpg, 27.8 lmp. mpg); premium (Super) grade fuel