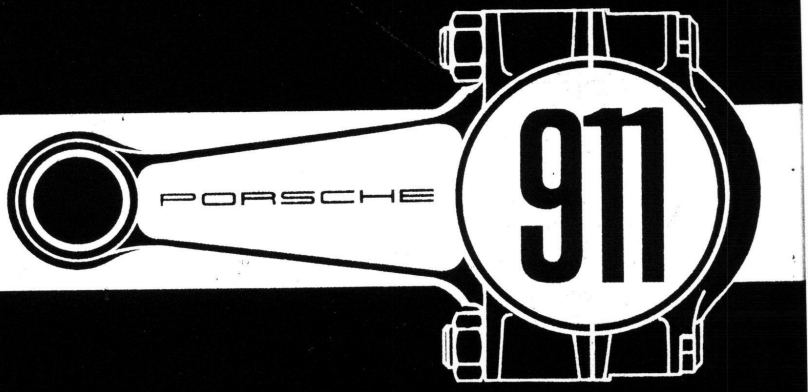
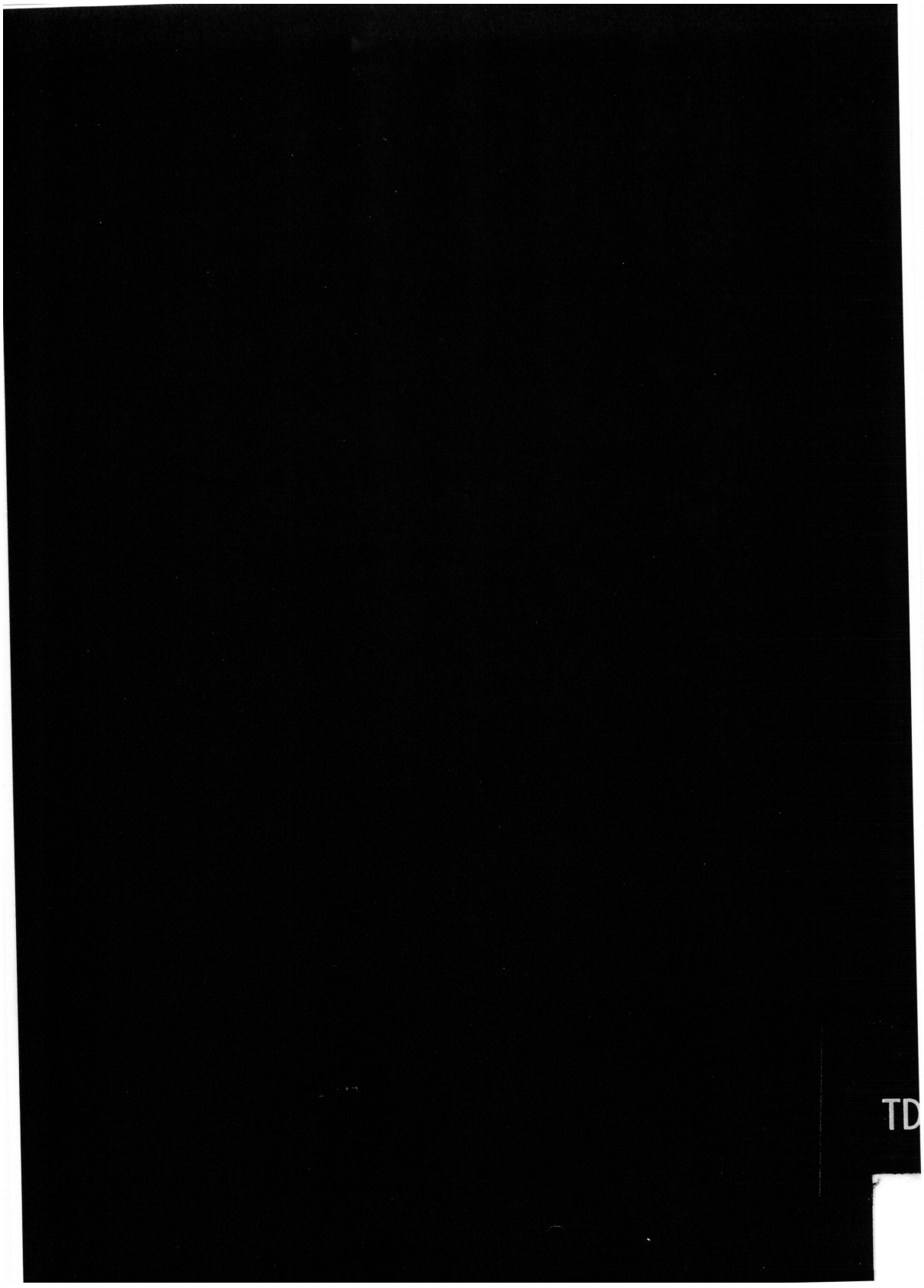
REPARATURLEITFADEN
WORKSHOP MANUAL
MANUEL DE RÉPARATION



VOLUME II

SECTIONS INDEX


TD

TECHNICAL DATA

Vehicle Type: 911

Engine Type: officially - 2000
internally - 901/01

Engine

Type	air cooled four stroke cycle Otto engine, unitized with clutch, transmission, and differential to form one assembly at rear of vehicle
Number of cylinders	6
Cylinder arrangement	horizontally opposed six, three cylinders in each bank
Bore	80 mm (3.15 in.)
Stroke	66 mm (2.60 in.)
Total piston displacement	1991 cc (121.5 cu. in.)
Compression ratio	9 : 1
Total weight (dry)	approx. 84 kp (185 lbs)
Crankcase	two-piece, light alloy
Cylinders	individual
Cylinder material	light alloy
Cylinder bore	cast iron coat
Cylinder heads	individual for each cylinder, light alloy
Valve seat inserts	shrunk in
Valve guides	shrunk in, special bronze
Spark plug seat inserts	helicoil
Crankshaft	forged
Crankshaft bearings	8 plain journal bearings
Main bearing 1 thru 7	split inserts, tri-metal
Main bearing 8	one-piece sleeve, hard lead
Main bearing 1	guide bearing
Connecting rods	forged steel, H-section shank
Big end bearings	tri-metal
Piston pin bushings	pressed in, bronze
Pistons	light alloy
Piston rings	2 compression rings, 1 oil scraper
Valve timing	OHC, 1 cam per cylinder bank
Camshafts	cast; 3 plain bearings directly in camshaft housing
Camshaft drive	by chains
Valve arrangement	overhead
Valve springs	2 coil springs per valve
Valve clearance (adjust cold):	
intake	0.10 mm (.004 in.) measure between valve and rocker arm
exhaust	0.10 mm (.004 in.)
Valve timing with 1 mm (.040 in.) valve clearance:	
intake opens before TDC	29°
intake closes after BDC	39°
exhaust opens before BDC	39°
exhaust closes after TDC	19°
Cooling	air cooled by blower on generator shaft
Cooling blower drive	off crankshaft by V-belt
Blower air flow	1390 l/sec at 6100 rpm (49 cfs at 6100 rpm)
Lubrication	forced feed, dry sump

Oil cooling	oil cooler on crankcase in blower air stream
Oil pressure indication	electrically controlled
Ignition type	battery
Ignition coil type	TK 12A 10 mV
Distributor type	Bosch JFR 6
Contact breaker gap	0.4 mm (.016 in.)
Ignition firing point	TDC
Firing order	1-6-2-4-3-5
Spark plugs	Bosch W 250 P 21
Spark plug threads	14 x 1.25 mm
Electrode gap	0.35 mm (.014 in.)

Clutch

Type	single plate, dry, M 215 K - Fichtel and Sachs
Pedal free travel	approx. 20 mm (.8 in.)
Total facing area	203 cm^2 (31.5 sq. in.)

Fuel System

Carburetors	6 overflow carburetors Solex, type 40 PI from engine No. 907 001 on 2 triple throat carburetors Weber, type 40 IDA 3 C and 3 C 1
Air cleaner	intake silencer with micronic filter cartridge
Fuel pumps	1 electric and 1 mechanical twin pump
Delivery pressure:	
electric pump	0.22 to 0.30 atm (3.23 to 4.41 psi)
mechanical pump	0.18 to 0.22 atm (2.65 to 3.23 psi)
Fuel screen	in fuel tank
Fuel filter	in fuel pumps

Electrical System

Operating voltage	12 Volt
Battery	12 V / 84 Ah
Generator	Bosch K1-14V 35A
Voltage regulator	Bosch VDN 1
Crankshaft/generator ratio	approx. 1:1.4
Starter motor	Bosch EB (L) 12V 0.8 (AL 50/20 W 12)
2 headlamps, high and low beam:	
with symmetric low beam	45/40 Watts each (left-hand drive countries)
with asymmetric low beam	45/40 Watts each
2 clearance lights:	
in headlamps for all countries except USA; in directional blinkers for USA	4 Watts each

2 tail lights (in directional blinker and stop light units	5 Watts each
2 front directional blinkers	18 Watts each
2 combination blinkers and stop lights	18 Watts each
2 license plate lights	4 Watts each
1 backup light	25 Watts
Interior light: 2 in Coupe models	10 Watts each
Tachometer illumination	2 Watts
High beam indicator	2 Watts
Directional signal pilot light	2 Watts
Combination instrument cluster illumination	2 Watts
Generator control lamp	2 Watts
Oil pressure indicator lamp	2 Watts
Speedometer illumination	2 Watts

Transmission and Rear Axle

Type	integral 5-speed transmission and differential
Transmission	5 forward speeds with Porsche servo-synchromesh
Gear ratios - see Transmission Diagram, Group R	
Reverse gear ratio	i = 3.1473
Gearshift mechanism	mechanical rod, floor mounted shift lever
Axle drive	spiral bevel gears, bevel gear differential, limited slip differential optional
Reduction ratio	i = 4.428

Chassis

Frame	welded sheetmetal box-section frame unitized with body
Front wheel suspension	independently suspended on struts and transverse arms
Rear wheel suspension	independently suspended on longitudinal links, powered over half-axles
Front wheel springing	1 round longitudinal torsion bar per wheel
Rear wheel springing	1 round transverse torsion bar per wheel
Attitude of rear radius arms	Coupe = 30^{o} (nominal inclination)
Front shockabsorbers	acting as suspension struts
Rear shockabsorbers	telescopic, double-action
Stabilizer	front, transverse
Steering	ZF rack and pinion with hydraulic damper
Steering ratio (total)	1 : 16.5 overall
Steering damper	hydraulic, double-acting
Steering wheel turns lock-to-lock	approx. 2.8
Smallest turning circle (diameter)	approx. 10.3 m (33.8 ft)
Toe-in, front	+ 15' to + 20' per wheel under load, steering box in center position
Toe-in, rear	0^{o}

Camber, front	$0^{o} \pm 20'$
Camber, rear	$-1^{o}\ 15' \pm 20'$
Steering axis inclination	$10^{o}\ 56'$
Caster	$6^{o}\ 45' \pm 45'$
Angle variation each side	40' until 1^{o} 10' (curve inside wheel set to 20^{o})
Wheel rims	drop center rims 4 1/2 J x 15
Wheels	perforated steel discs
Tires	165 HR 15
Nominal tire pressures:	
front	normal highway driving 1.8 atm (26.5 psi)
	high speed expressways 2.0 atm (29.4 psi)
rear	normal highway driving 2.0 atm (29.4 psi)
	high speed expressways 2.2 atm (32.3 psi)
Service brakes (foot brake)	discs
Service brake actuation	hydraulic
Total effective brake area	185 cm^2 (28.7 sq. in.)
Front brake disc diameter	282 mm (11.1 in.)
Rear brake disc diameter	285 mm (11.2 in.)
Parking brake	mechanical, acting on rear wheels
Chassis lubrication	individual grease nipples

Body

Type	All-steel body unitized with frame, declining front contour, fastback rear in Coupes
Doors	2 doors hinged on front posts
Door width	1050 mm (41.3 in.) average
Door swing angle	approx. 70^{o}
Windows:	
windshield	one-piece, constant radius
door windows	crank lowered, with vent panel
rear side windows	hinged, with position lock
rear window	one-piece, curved
type of glass	safety glass
windshield wipers	electric, 2 parallel wiper arms
Compartment lids:	
front	hinged at rear, with hydraulic prop, opened from passenger compartment
rear	hinged at front, with hydraulic prop, opened from passenger compartment
Seats:	
Seating capacity	2/2
front seats	2 fully reclining bucket-type seats
rear seats	2 occasional seats, folding forward to form luggage platforms
Instrument panel	speedometer with odometer and trip mileage counter, clearance light control lamp illuminated electric tachometer with high beam indicator and directional indicator pilot lamps; combination instrument cluster including oil temperature gauge, oil pressure gauge, and generator control lamp - illuminated; clock; 3-position windshield wiper switch on steering column; ignition/starter switch, light switch

Instrument panel (cont'd)	cigar lighter, ashtray, locking glove compartment, hand grip; blinker-dimmer-flasher switch on steering column, steering wheel with signal horn button
Interior trim:	
floor	rubber mats
center tunnel	front with rubber padding, rear with carpets
forward side panels	carpet covered
doors and side panels	upholstered
headlining	leatherette
heating	hot air, remotely controlled, 2 defroster nozzles at windshield, 2 hot air outlets in side members below doors
Ventilation	fresh air outlets thru defroster nozzles and outlets in side members below doors
Miscellaneous:	
bumpers	front and rear with 2 overriders each
spare tire	concealed under locked front lid
fuel tank	under front lid
tools and accessories	under front lid

Weights and Measures

Wheelbase	2211 mm (87.05 in.)
Track, front	1337 mm (52.64 in.) from chassis No: 305 101 1353 mm (53,23 in.)
Track, rear	1317 mm (51.85 in.) from chassis No: 305 101 1321 mm (52,03 in.)
Length	4163 mm (163.9 in.)
Width	1610 mm (63.39 in.)
Height (empty), Coupe	1320 mm (51.97 in.)
Body overhang, front	865 mm (34.1 in.)
Body overhang, rear	1055 mm (41.5 in.)
Ground clearance, loaded	150 mm (5.9 in.)
Chassis clearance	140 mm (5.5 in.)
Empty weight (DIN) Coupe	1080 kp (2380 lbs)
Maximum permissible weight (total)	1400 kp (3086 lbs)
Maximum axle load, front	600 kp (1323 lbs)
Maximum axle load, rear	840 kp (1852 lbs)
Engine weight, complete (w/o oil)	approx. 184 kp (406 lbs)
Transmission weight, complete (w/ oil)	approx. 50 kp (110 lbs)

Capacities

Fuel tank	approx. 62 liters incl. 6 liters reserve (16.4 US gals incl. 1.6 gals reserve)
Engine and oil tank	approx. 9 liters premium HD oil, summer SAE 30, winter SAE 20 (9.5 US qts)
Transmission and differential	approx. 2.5 liters Hypoid SAE 90 (2.6 US qts)
Brake fluid reservoir	approx. 0.2 liters (7 fl. oz)
Windshield washer reservoir	approx. 2.0 liters (2.1 US qts)

Performance

Horsepower	130 DIN/HP (148 SAE/HP) at 6100 rpm
Maximum torque	17.8 mkp (128.7 lbs/ft) at 4200 rpm
Mean piston speed at max. power	13.4 m/sec (44 ft/sec)
Mean working pressure at max. power	11.3 kp/cm^2 (161 psi)
Minimum fuel consumption	225 g/PSh at 3400 rpm
Maximum speed	210 kmh (130 mph)
Specific power output	65 DIN-HP/liter (1.22 SAE-HP/cu. in.)
Power/weight ratio (road condition)	8.8 DIN kp/HP (17 lbs/SAE HP)
Road speed in gears (theoretical)	see Transmission Diagram, Group R

Fuel Consumption

Nominal fuel consumption (DIN 70030)	9.6 liters/100 km (24.5. mpg US)
Required fuel octane rating	approx. 98 - 100 ROZ

SUPPLEMENTS

GROUP **TD**

TECHNICAL DATA

911 S

TECHNICAL DATA

Vehicle Type: 911 S

Engine Type: 2000 S

Engine

Type	air cooled four-stroke cycle Otto engine, unitized with clutch, transmission, and differential at rear of vehicle
Number of cylinders	6
Cylinder arrangement	horizontally opposed six, three cylinders in each bank
Bore	80 mm (3.15")
Stroke	66 mm (2.60")
Total piston displacement	1991 cc (121.5 cu.in)
Compression ratio	9.8:1
Total weight (dry)	approx. 184 kp (406 lbs)
Crankcase	two-piece, light alloy
Cylinders	removable individual units
Cylinder material	Biral (cast iron liner with light alloy cooling fin jacket)
Cylinder heads	light alloy, individual for each cylinder
Valve seat inserts	shrunk in
Valve guides	special bronze, shrunk in
Spark plug seat inserts	Helicoil
Crankshaft	forged
Crankshaft mounting	8 plain journal bearings
Main bearings 1 thru 7	tri-metal split inserts
Main bearing 8	hard lead sleeve
Main bearing 1	thrust bearing
Connecting rods	soft nitrated forged steel
Big end bearings	tri-metal
Piston pin bushings	Kuprodur, machined
Pistons	forged light alloy, box-shaped
Piston rings	2 compression rings, 1 oil scraper
Valve timing	OHC, 1 cam per cylinder bank
Camshafts	cast steel, in 3 plain bearings in base metal of camshaft housing
Camshaft drive	through chains
Valve arrangement	overhead
Valve springs	2 coil springs per valve
Valve clearance (adjust cold):	
intake	0.10 mm (.004") measured between valve and rocker arm
exhaust	0.10 mm (.004") measured between valve and rocker arm
Valve timing with 1 mm (.040") valve clearance:	
intake opens before TDC	29°
intake closes after BDC	39°
exhaust opens before BDC	39°
exhaust closes after TDC	19°
Cooling	air cooled by blower on generator shaft
Cooling blower drive	off crankshaft by V-belt
Blower air flow	1390 l/sec 6100 rpm (49 cfs 6100 rpm)
Lubrication	forced feed, dry sump

Oil cooling	oil cooler on crankcase in air stream of blower
Oil pressure indication	electrical
Ignition type	battery
Ignition coil type	TK 12 A 10mV
Distributor type	Bosch 0231159002, yellow nomenclature plate
Contact breaker gap	0.4 mm (.016")
Ignition firing point	31° before TDC 6000 rpm
Firing order	1-6-2-4-3-5
Spark plug type	Bosch W 265 P 21
Spark plug threads	14 x 1.25 mm
Electrode gap	0.35 mm (.014")

Clutch

Type	single plate, dry, M 215 K Fichtel & Sachs
Pedal free travel	approx. 20 mm (.8")
Total facing area	203 cm^2 (31.5 sq. in.)

Fuel system

Carburetors	Weber 40 IDA (S), or 40 IDS 3 C and 3 C 1, respectively
Air cleaner	induction silencer with micronic filter cartridge
Fuel pump	1 electrical fuel pump
Delivery pressure	0.22 to 0.30 atm (3.23 to 4.41 psi)
Delivery rate	900 cc/min (30.4 fl.oz.)
Fuel screen	in fuel tank
Fuel filter	in fuel pump

Electrical System

Operating voltage	12 Volts
Battery rating	12 V, 45 Ah
Alternator	Bosch K1-14 V 35 A
Voltage regulator	Bosch VDN 1
Crankshaft/alternator rpm ratio	approx. 1:1.4
Starter motor	Bosch EB (L) 12 V 0.8 (AL 50/20 W 12)
2 headlamps, high and low beam:	
with symmetric low beam	45/40 Watts each (countries with left-hand traffic)
with asymmetric low beam	45/40 Watts each
2 clearance lights: in headlamps for all countries except USA; in directional blinkers for USA	4 Watts each

2 tail lights in blinker/stop light units	5 Watts each
2 front directional blinkers	18 Watts each
2 combination blinker/stop lights	18 Watts each
2 license plate lights	4 Watts each
1 backup light	25 Watts
2 interior lights (Coupe)	10 Watts each
Tachometer illumination	2 Watts
High beam indicator	2 Watts
Blinker indicator	2 Watts
Multi-gauge cluster illumination	2 Watts
Alternator control lamp	2 Watts
Oil pressure control lamp	2 Watts
Speedometer illumination	2 Watts

Transmission and Rear Axle

Type	integral transmission and differential
Transmission	5 forward speeds with Porsche servo-synchromesh
Gear ratios	see transmission diagram, Group R
Reverse gear ratio	i = 3.1473
Gearshift mechanism	mechanical rod, floor mounted shift lever
Differential drive	spiral bevel gears, bevel gear differential, limited slip differential optional
Reduction ratio	i = 4.428

Chassis

Frame	welded sheetmetal box-section underbody unitized with body
Front wheel suspension	independently suspended on struts and transverse arms
Rear wheel suspension	independently suspended on longitudinal links with half-axle drive
Front wheel springing	1 round longitudinal torsion bar per wheel
Rear wheel springing	1 round transverse torsion bar per wheel
Attitude of rear radius arms	Coupe = 30^{o} nominal inclination
Front shockabsorbers	acting as suspension struts
Rear shockabsorbers	telescopic, double-action
Stabilizer	front, transverse mounted
Steering type	ZF rack and pinion
Steering ratio	1.:16.5 overall
Steering wheel turns lock-to-lock	approx. 2.8
Smallest turning circle diameter	approx. 10.3 m (33.8')
Toe-in, front	+ 40' (preloaded with 15 kp or 33.1lbs)
rear	0^{o}

Camber, front	$0 \pm 20'$	
rear	$-1^{\circ}\ 6'$	
Steering axis inclination	$10^{\circ}\ 56'$	
Caster	$7^{\circ}\ 45'$	
Angle variation	$40'$ to $1^{\circ} \pm 10'$ (increasing toe-in)	
Wheels	forged light alloy	
Wheel rims	drop center rims 4 1/2 J x 15	
Tires	165 HR 15	
Nominal tire pressures:		
front	normal highway speeds	1.8 atm (26.5 psi)
	fast driving (Autobahn)	2.2 atm (32.3 psi)
rear	normal highway speeds	2.0 atm (29.4 psi)
	fast driving (Autobahn)	2.2 atm (32.3 psi)
Service brake (foot brake)	discs	
Service brake actuation	hydraulic	
Total effective brake area	185 cm^2 (28.7 sq. in.)	
Brake disc diameter, front	282 mm (11.1"), vented disc	
rear	285 mm (11.2"), vented disc	
Parking brake	mechanical, acting on rear wheels	
Chassis lubrication	individual grease nipples	

Body

Type	All-steel body unitized with frame, declining front contour, fastback rear in Coupe
Doors	2 doors hinged on front posts
door width	1050 mm (41.3") average
door swing angle	approx. 70°
Windows:	
windshield	one-piece, constant radius
door windows	crank-lowered, with vent panel
rear side windows	hinged, with position lock
rear window	one-piece, curved
type of glass	safety-glass
windshield wipers	electrical, 2 parallel wiper arms
Compartment lids:	
front	hinged at rear, with hydraulic prop, opened from passenger compartment
rear	hinged at front, with hydraulic prop, opened from passenger compartment
Seats:	
seating capacity	2/2
front seats	2 fully reclining bucket-type seats
rear seats	2 occasional seats, folding forward to form luggage platforms
Instrument panel	illuminated speedometer with odometer and trip mileage counter and clearance light control lamp; illuminated electric tachometer with high beam indicator and directional indicator pilot lamps; multi-gauge cluster with oil temperature gauge, oil pressure gauge, and alternator control lamp (illuminated); clock; 3-position windshield wiper switch on steering column; ignition/starter switch, light switch

Instrument panel (cont'd)	cigar lighter, ashtray, locking glove compartment, hand grip, blinker-dimmer-flasher switch on steering column, steering wheel with signal horn button
Interior trim:	
floor	carpeted
center tunnel	rubber padded front, carpeted rear
forward side panels	carpeted
doors and side panels	upholstered
headlining	leatherette
heating	hot air, remotely controlled, 2 defroster nozzles at windshield, 2 hot air outlets in side members below doors
Ventilation	fresh air outlets thru defroster nozzles and outlets in side members below doors
Miscellaneous:	
bumpers	front and rear with 2 overriders each
spare tire	concealed under locked front lid
fuel tank	beneath luggage compartment
tool and accessories	in luggage compartment

Weights and Measures

Wheelbase	2211 mm (87.05")
Track, front	1353 mm (53.27")
rear	1325.4 mm (52.18")
Length	4163 mm (163.9")
Width	1610 mm (63.39")
Height (empty), Coupe	1320 mm (51.97")
Body overhang, front	865 mm (34.06")
rear	1055 mm (41.54")
Ground clearance, loaded	150 mm (5.91")
Chassis clearance	140 mm (5.51")
Empty weight (DIN), Coupe	1030 kp (2271 lbs)
Maximum permissible weight (total)	1400 kp (3086 lbs)
Maximum axle load, front	600 kp (1323 lbs)
rear	840 kp (1852 lbs)
Engine weight, complete (w/o oil)	184 kp (406 lbs)
Transmission weight, complete, with oil	approx. 50 kp (110 lbs)

Capacities

Fuel tank	approx. 62 liters incl. 6 liters reserve (16.4 US gals incl 1.6 gals reserve)
Engine and oil tank	approx. 9 liters premium HD oil (9.5 US qts) summer SAE 30, winter SAE 20
Transmission and differential	approx. 2.5 liters Hypoid SAE 90 (2.6 US qts)
Brake fluid reservoir	approx. 0.2 liters (7 fl.oz.)
Windshield washer reservoir	approx. 2.0 liters (2.1 US qts)

Performance

Horsepower rating, maximum	160 DIN HP (180 SAE HP) 6600 rpm
Maximum torque	18.2 mkp (131.6 lbs/ft) 5200 rpm
Mean piston speed at max. power	14.5 m/sec (47.6 ft/sec)
Mean working pressure at max. power .	11.0 kp/cm^2 (156 psi)
Minimum fuel consumption	225 g/PSh 2000 rpm
Maximum speed	225 kmh (140 mph)
Specific power output	80 DIN HP/liter (1.48 SAE HP/cu.in)
Power/weight ratio (road ready)	6.85 kp/DIN HP (12.6 lbs/SAE HP)
Road speed in gears(theoretical)	see transmission diagram, Group R

Fuel Consumption

Nominal fuel consumption	10.2 l/100 km (23.0 mpg US)
Required fuel octane rating.....	approx. 98-100 ROZ (Research Octane Rating)

TECHNICAL DATA

911 T

Vehicle Type: 911T

Engine Type: 2000T

Engine

Type	air cooled four stroke cycle Otto engine, unitized with clutch, transmission, and differential, forming a power train at rear of vehicle
Number of cylinders	6
Cylinder arrangement	horizontally opposed six, three cylinders in each bank
Bore	80 mm (3.15")
Stroke	66 mm (2.60")
Total piston displacement	1991 cc (121.5 cu. in.)
Compression ratio	8.6:1
Total weight, dry	approx. 184 kg (406 lbs)
Crankcase	two piece, light alloy
Cylinders	individual
Cylinder material	grey cast iron
Cylinder heads	individual for each cylinder, light alloy
Valve seat inserts	shrunk in
Valve guides	shrunk in, special bronze
Spark plug seats	helicoil inserts
Crankshaft	forged
Crankshaft main bearings	8 plain journal bearings
Main bearings 1 - 7	split inserts, tri-metal
Main bearing 8	one piece sleeve, hard lead
Main bearing 1	thrust bearing
Connecting rods	forged steel
Big end bearings	tri-metal
Piston pin bushings	machined Kuprodur
Pistons	die cast (Autotherm.)
Piston rings	2 compression rings, 1 oil scraper
Valve timing	OHC, 1 cam per cylinder bank
Camshafts	cast steel, in 3 plain bearings directly in camshaft housing
Camshaft drive	by chains
Valve arrangement	overhead
Valve springs	2 coil springs per valve, or 1 coil spring per valve, respectively
Valve clearance (adjust cold):	
intake	0.10 mm (.004") measure between valve and rocker arm
exhaust	0.10 mm (.004")
Valve timing with 1 mm (.040") valve clearance:	
intake opens	15° BTC
intake closes	29° ABC
exhaust opens	41° BBC
exhaust closes	5° BTC
Cooling	air cooled by blower on generator shaft
Cooling blower drive	off crankshaft by V-belt
Blower air flow	1320 ltr/sec (47 cfs) at 5800 rpm
Lubrication	forced feed, dry sump

Oil cooling	oil cooler on crankcase in blower air stream
Oil pressure indication	electrically controlled
Ignition type	battery
Ignition coil type	TK 12A 10 mV
Distributor type	Marelli S112Ax
Contact breaker gap	0.4 mm ± 0.03 mm (.016" ± .001"), or dwell angle of 40° ± 3°
Ignition firing point	35° BTC at 6000 rpm
Firing order	1-6-2-4-3-5
Spark plugs	Bosch W 230 T 30, Beru 240/14/3
Spark plug threads	14x1.25 mm
Electrode gap	0.6 mm (.024")

Clutch

Type	single plate, dry, M215K Fichtel + Sachs
Pedal free travel	approx. 20 mm (.8")
Total facing area	203 cm^2 (31.5 sq. in.)

Fuel System

Carburetors	Weber Type 40 IDT 3C and 40 IDT 3C1
Air cleaner	intake silencer with micronic filter cartridge
Fuel pump	1 electric fuel pump
Fuel delivery pressure	0.28 - 0.33 atm (4.1 - 4.9 psi) for Bendix pump
	0.28 - 0.30 atm (4.1 - 4.4 psi) for Hardi pump
Fuel delivery rate	900 cc (30.4 fl. oz.) per minute
Fuel filtering	filtering screen in fuel tank and pump

Electrical System

Operating voltage	12V
Battery	12V/45Ah
Alternator	Motorola 14V 490W
Voltage regulator	Motorola
Crankshaft/generator ratio	approx. 1:1.4
Starter motor	Bosch EB (L) 12V 0.8 (AL 50/20 W 12)
2 headlamps, high and low beams:	
with symmetric low beams	45/40 watts each (left hand drive countries only)
w/asymmetric low beams	45/40 watts each
2 clearance lights:	
in headlamps for all countries except USA;	
in directional blinkers for USA	4 watts each

2 tail lights (in blink/stop light units)	5 watts each
2 front directional blinkers	18 watts each
2 blink/stop light units	18 watts each
2 license plate light	4 watts each
1 backup light	25 watts
Interior lights:	
2 in Coupe models	10 watts each
Tachometer illumination	2 watts
High beam indicator	2 watts
Blinker control lamp	2 watts
Combination instrument cluster illumination	2 watts
Alternator control lamp	2 watts
Oil pressure indicator lamp	2 watts
Speedometer illumination	2 watts

Transmission and Rear Axle

Type	integral transmission and differential
Transmission	4 forward speeds with Porsche synchronization, 5 speed transmission optional
Gear ratios	See Transmission Diagram, Group R
Reverse gear ratio	i = 3.1473
Gearshift mechanism	mechanical rod, floor mounted shift lever
Rear axle drive	spiral bevel gears, bevel gear differential, limited slip differential optional
Reduction ratio	i = 4.428

Chassis

Frame	welded sheetmetal box section frame unitized with body
Front wheel suspension	independently suspended on struts and transverse arms
Rear wheel suspension	independently suspended on triangulated links, with half-axle drive
Front wheel springing	1 round longitudinal torsion bar per wheel
Rear wheel springing	1 round transverse torsion bar per wheel
Rear radius arm attitude	Coupe = nominal inclination 39°
Front shockabsorbers	acting as suspension struts
Rear shockabsorbers	telescopic, double-action
Stabilizer	front, transverse mounted
Steering type	ZF rack and pinion
Steering ratio	1:16.5 overall
Steering wheel turns lock-to-lock	approx. 2.8
Smallest turning circle	approx. 10.5 m (34.4 ft)
Toe-in, front	± 0°
rear	0° ± 10'

Camber, front	$0^{o} \pm 20'$
rear	$-50' \pm 20'$
Steering axis inclination	10^{o} 55'
Caster	6^{o} 45' $\pm$ 45'
Angle variation	$0^{o} \pm 30'$ (increasing toe-in)
Wheels	Steel
Wheel rim type	drop center, 5 1/2 J x 15
Tires	165 HR 15
Nominal tire pressures:	
front	1.8 atm (26.5 psi)
rear	2.0 atm (29.4 psi)
Type service brake	disc
Service brake actuation	hydraulic
Total effective brake area	185 cm^2 (28.7 sq. in.)
Brake disc diameter, front	282.5 mm (11.12")
rear	286.0 mm (11.26")
Parking brake	mechanical, acting on rear wheels

Body

Type	all-steel body unitized with frame, declining front contour, fastback rear in Coupe
Doors	2 doors hinged on front posts
door width	1050 mm (41.3") overall
door swing angle	approx. 70^{o}
Windows:	
windshield	one-piece, constant radius
door windows	cranked, with vent panel
rear side windows	hinged, with position lock
rear window	one-piece, curved
type of glass	safety glass
windshield wipers	electric, 2 parallel wiper arms
Compartment lids:	
front	hinged at rear, with hydraulic prop, opened from passenger compartment
rear	hinged at front, with hydraulic prop, opened from passenger compartment
Seats:	
seating capacity	2/2
front seats	2 fully reclining bucket-type seats
rear seats	2 occasional seats, folding forward to form luggage platforms
Instruments panel	illuminated speedometer with odometer and trip mileage counter, clearance light control lamp; illuminated electric tachometer with high beam indicator lamp, and directional blinker indicator lamp; illuminated oil temperature gauge with built in oil pressure and generator control lamps; illuminated fuel gauge with low-fuel indicator lamp; illuminated clock; windshield wiper switch (3-position) on steering post, ignition switch, light switch.

Instrument panel (cont'd)	cigarette lighter, ashtray, locking glove compartment, hand grip, blinker-dimmer-flasher switch on steering column, steering wheel with signal horn key (horn button for USA)
Interior trim:	
floor	lined with rubber mats
center tunnel	carpet lined
forward side panels	carpet lined
doors and side panels	upholstered
headlining	plastic lined
heating	remotely controlled hot air heating, 2 defroster nozzles at windshield, 2 hot air outlets in side members below doors
Ventilation	fresh air outlets thru defroster nozzles and outlets in side members below doors
Miscellaneous:	
bumpers	front and rear, with 2 overriders each
spare wheel	concealed under locked front lid
fuel tank	beneath luggage compartment
tools and accessories	in luggage compartment

Weights and Measures

Wheelbase	2211 mm (87.05")
Track, front	1367 mm (53.82")
rear	1335 mm (52.56")
Length	4163 mm (163.90")
Width	1610 mm (63.39")
Height, empty	1320 mm (51.97")
Body overhang, front	865 mm (34.06")
rear	1055 mm (41.54")
Ground clearance, loaded	150 mm (5.91")
Chassis clearance	140 mm (5.51")
Empty weight (DIN)	up to 31 Nov 67: 1080 kp (2376 lbs) from 1 Dec 67: 1020 kp (2244 lbs)
Total permissible weight	1400 kp (3086 lbs)
Maximum axle load, front	600 kp (1323 lbs)
rear	840 kp (1852 lbs)
Engine weight, complete but without oil	approx. 184 kp (406 lbs)
Transaxle weight, complete with oil	approx. 50 kp (110 lbs)

Capacities

Fuel tank	approx. 62 liters incl. 6 liters reserve (16.4 US gals incl 1.6 gals reserve)
Engine and oil tank	approx. 9 liters premium HD oil (9.5 US qts) summer SAE 30, winter SAE 20
Transaxle	approx. 2.5 liters Hypoid SAE 90 (2.6 US qts)
Brake fluid reservoir	approx. 0.2 liters (7 fl. oz.)
Windshield washer reservoir	approx. 2.0 liters (2.1 US qts)

Performance

Horsepower rating	110 DIN HP (125 SAE HP) at 5800 rpm
Maximum torque	16 mkp (131 ft-lb) at 4200 rpm
Mean piston speed at maximum power	12.8 m/sec
Mean working pressure at maximum power	8.6 kp/cm^2 (122 psi)
Minimum fuel consumption	210 g/HPh at 3300 rpm
Maximum speed	200 kmh (125 mph)
Specific power output	55 DIN HP/liter (1.02 SAE HP/cu. in.)
Power/weight ratio (road ready)	10.4 kp/DIN HP (20.2 lbs/SAE HP)
Road speed in gears (theoretical)	see transmission diagram, Group R

Fuel Consumption

Nominal fuel consumption	9 ltr/100 km (26 US mpg)
Required fuel octane rating	96 ROZ (research octane rating)

911 T

TECHNICAL DATA

Vehicle type: 911 T

Engine type: 911 T

Engine

Type	Air cooled four cycle gasoline engine in unit with clutch, transmission and differential to form a single assembly at rear of vehicle
Number of cylinders	6
Cylinder arrangement	Horizontally opposed, three cylinders in each bank
Bore	80 mm (3.15")
Stroke	66 mm (2.60")
Total piston displacement	1991 cc
Compression ratio	8.6 : 1
Compression test pressure	9 - 11 kp/cm^2 (128 - 157 psi) after 12 compression strokes
Total dry weight	Approx. 184 kg (406 lbs)
Crankcase	Two-part, light alloy
Cylinders	Individual
Cylinder material	Grey cast iron
Cylinder heads	Individual for each cylinder, light alloy
Valve seat inserts	Shrunk in
Valve guides	Shrunk in, special bronze
Spark plug seats	Helicoil inserts
Crankshaft	Forged
Crankshaft main bearings	8 plain bearings
Main bearings 1 thru 7	Split half shells, tri-metal
Main bearing 8	One piece, hard lead
Main bearing 1	Thrust bearing
Connecting rods	Forged steel
Big end bearings	Tri-metal
Piston pin bushings	Kuprodur, machined
Pistons	Die cast, Autotherm.
Piston rings	2 compression rings, 1 oil scraper
Valve operation	OHC, 1 camshaft per cylinder bank
Camshafts	Cast steel, 3 plain bearings directly in camshaft housing
Camshaft drive	Chains
Valve arrangement	Overhead
Valve springs	2 coil springs per valve
Valve test clearance (adjust with engine cold)	
Inlet	0.10 mm (0.004") - measure between valve and rocker arm
Exhaust	0.10 mm (0.004")
Valve timing with 1 mm (0.04") valve clearance	
Inlet opens before TDC	15°
Inlet closes after BDC	29°
Exhaust opens before BDC	41°
Exhaust closes before TDC	5°
Cooling	Air cooled by axial blower on generator shaft
Blower drive	From crankshaft by V-belt

Blower air flow	1320 liters (47 cu. ft.)/sec at 5800 rpm
Lubrication	Dry sump, forced feed
Oil cooling	Oil cooler on crankcase in blower air stream
Oil pressure gauge	Electrically controlled
Ignition	Battery and coil
Coil	TK 12 A 10 mV
Distributor	Marelli S 112 Ax
Contact breaker gap	0.4 ± 0.03 mm (0.016 ± 0.0012"), dwell angle $40^{\circ} \pm 3^{\circ}$
Ignition point	35° BTDC at 6000 rpm
Firing order	1 - 6 - 2 - 4 - 3 - 5
Spark plugs	Bosch W 230 T 30
	Beru 240/14/3
Spark plug threads	14 x 1.25 mm
Electrode gap	0.6 mm (0.024")

Clutch

Type	Fichtel and Sachs - M 215 K single dry plate
Free travel at pedal	Approx. 20 mm (0.8")
Total friction area	203 cm^2 (31.5 sq. in.)

Fuel system

Carburetors	Weber Type 40 IDT 3 C or IDT 3 C 1
Air cleaner	Intake silencer with Micronic filter element
Fuel pump	1 Hardi electric
Fuel delivery pressure	0.28 - 0.30 atm (4.1 - 4.5 psi)
Fuel delivery rate	900 cc (30.4 fl. oz.)/min.
Fuel pre-filter	Mesh screen in fuel tank
Fuel filter	Micro-filter in fuel pump

Electrical system

Operating voltage	12 V
Batteries	2 x 12 V, 36 Amp/hr
Alternator	Motorola 14 V 770 W
Regulator	Motorola
Crankshaft-generator shaft ratio	Approx. 1 : 1.4
Starter	Bosch EB (12 V 0.8 hp)
2 headlights, high an low beam (Halogen)	Each 2 x H 1 55 W
2 headlights, high an low beam (standard bulbs) with symmetrical low beams (for driving on left only)	Each 45/40 W
with asymmetrical low beams	Each 45/40 W
2 clearance lights for all countries except USA, in headlights for USA, in front turn indicators	Each 4 Watt

4 side position lights in front and rear turn indicators (USA only)	Each 4 Watt
2 tail lights in turn/stop tail light cluster)	Each 5 Watt
Emergency warning flashers (front and rear turn indicators)	
2 front turn indicators	Each 18 Watt
2 rear turn/stop/lights	Each 18 Watt
2 license plate lights	Each 4 Watt
1 backup light	25 Watt
Interior lights - Coupé (2)	Each 10 Watt
Glove box light	10 Watt
Tachometer lighting	2 Watt
High beam control lamp	2 Watt
Turn indicator control lamp	2 Watt
Combined instrument cluster lighting	2 Watt
Battery charge control lamp	2 Watt
Oil pressure warning lamp	2 Watt
Speedometer lighting	2 Watt
Fuses	
Window lift, windshield wipers, emergency warning light	25/40 Amp
Cigar lighter, stop lights, electric sliding roof	16/25 Amp
High and low beam headlights	8/15 Amp
Turn indicators, position lights, license plate lights	5/ 9 Amp

Transmission and rear axle

Type	Integral manual shift gearbox and differential
Gearbox	4 forward speeds with Porsche servo synchromesh; 5-speed gearbox optional
Gear ratios	1st - 4th or 1st - 5th: see transmission diagram, Group R
Reverse gear ratio	3.1473 : 1
Gear shift	Manual rod linkage, ball pivot floor mounted center shift lever
Rear axle drive	Spiral bevel pinion and crownwheel, bevel gear differential; optional limited slip differential
Rear axle ratio	4.428 : 1

Chassis

Frame	Welded sheet metal box section frame in unit with body
Front suspension	Independent, spring struts and lower wishbones
Rear suspension	Independent, semi-trailing arms and half shafts
Front springs	1 round section longitudinal torsion bar per wheel
Rear springs	1 round section transverse torsion bar per wheel
Rear radius arm attitude (nominal)	$36^{o}30'$ - 37^{o}

Front shock absorbers	Acting as suspension struts
Rear shock absorbers	Double acting, telescopic
Steering	ZF-rack and pinion
Total ratio	17.78 : 1 (average)
Steering wheel turns lock to lock	Approx. 3.1
Smallest turning circle	Approx. 10.7 m (35.1 feet)
Toe-in, front	0^{o}
rear	$0^{o} \pm 10'$
Camber, front	$0^{o} \pm 20'$
rear	$-50' \pm 20'$
Steering axis inclination	$10^{o}55'$
Caster	$6^{o}45' \pm 45'$
Toe-out on turns, 20^{o} wheel lock	0^{o} - 30' increasing toe-in
Wheels	Steel rim
Rims	5 1/2 J x 15, drop center
Tires	165 HR 15
Tire pressures (nominal), front	1.8 atm (26.5 psi)
rear	2.0 atm (29.5 psi)
Service brake (foot brake)	Disc (twin circuit)
Service brake actuation	Hydraulic
Total effective brake area	210 cm^2 (32.55 sq. in.)
Disc brake diameter, front	282.5 mm (11.12")
rear	290 mm (11.42")
Effective brake disc diameter,	
front	235 mm (9.25")
rear	244 mm (9.61")
Parking brake	Mechanical, acting on both rear wheels

Body

Type	All steel body in unit with frame, declining front contour, fast-back rear on Coupé
Doors	2 doors, front hinged
Width	1050 mm (41.3") average
Opening angle	Approx. 70^{o}
Windows	
Windshield	One piece, constant radius
Door windows	Crank action wind down windows
Rear side windows	Front hinged, with position lock
Rear window	One piece, curved, electrically heated
Type of glass	Safety glass
Windshield wipers	Electric, 2 parallel action arms
Compartment lids	
front	Rear hinged, with hydraulic prop, opened from car's interior
rear	Front hinged, with hydraulic prop, opened from car's interior
Seats	
Seating capacity	2 / 2
Front seats	2 adjustable fully reclining bucket seats
Rear seats	2 occasional seats, folding forward to form luggage platform

Dashboard	Speedometer with total and trip distance recorders, side-light telltale, illuminated Electric revolution counter with built-in telltales for high beam and turn indicators, illuminated Oil temperature gauge with built-in oil pressure and generator telltale, illuminated Fuel gauge with reserve warning light, illuminated Clock, illuminated 3-position switch for windshield wipers on steering column outer tube Ignition/starter switch, main light switch Cigar lighter, ashtray, lockable glove box, grab handle Turn indicator/low beam/headlight flasher switch on steering column Steering wheel with horn push
Interior equipment	
Floor	Fitted carpet
Center tunnel	Carpet trim
Front side panels	Carpet trim
Doors and side panels	Upholstered
Roof lining	Plastic material
Heating	Remote controlled warm air heater with hot and cold air mixing, 2 defroster nozzles for windshield and 2 warm air outlets inside members below the doors
Ventilation	Flap controlled fresh air plenum chamber, with 3-speed blower and air distribution system, centralized control unit
Various	
Bumpers	Front and rear, each with two overrider horns
Spare wheel	Thief-proof mounting under front lid
Fuel tank	In front compartment
Tools and accessories	In front compartment

Dimensions and weights

Wheelbase	2268 mm (89.3")
Track front	1362 mm (53.6")
rear	1343 mm (52.8")
Length	4163 mm (163.8")
Width	1610 mm (63.4")
Height (unladen)	1320 mm (52.0")
Overhang, front	865 mm (34.1")
rear	1055 mm (41.6")
Ground clearance (laden)	150 mm (5.9")
Ground clearance between wheels	140 mm (5.5")
Dry weight (DIN)	1020 kg (2249 lbs)
Permitted total weight	1400 kg (3087 lbs)
Permitted axle load	
front	600 kg (1323 lbs)
rear	840 kg (1773 lbs)
Weight of engine, ready to install, without oil ... approx.	184 kg (406 lbs)
Weight of transmission, ready to install, with oil ... approx.	50 kg (110 lbs)

Filling capacities

Fuel tank	Approx. 62 liters (16.4 US gal.), including 6 liters (1.6 US gal.) reserve
Engine and oil tank	Approx. 9 liters (19 US pints) branded HD oil; in summer SAE 30, in winter SAE 20 for temperatures from -15°C (+5°F) to 0°C (32°F), SAE 10 for temperatures below -15°C (+5°F)
Transmission and differential	Approx. 2.5 liters (5.3 US pints) SAE 90 hypoid
Brake fluid reservoir	Approx. 0.2 liters (0.42 US pints)
Windshield washer	Approx. 2 liters (4.2 US pints)

Performance

Output	110 BHP (DIN)
at engine speed	5800 rpm
Maximum torque	16 mkp (116 lb/ft)
at engine speed	4200 rpm
Mean piston speed at maximum output	12.8 m/sec (2520 ft/min)
Mean effective pressure at maximum engine output	8.6 kp/cm^2 (122.3 psi)
Min. fuel consumption	230 g/BHP/hr
at engine speed	3300 rpm
Maximum road speed	200 kph (124 mph)
Output per liter	55 BHP
Power/weight ratio (ready for road)	9.9 kg. (21.8 lbs)/BHP (DIN)
Speeds in indirect ratios (theoretical)	See transmission diagrams, group R

Fuel consumption

Fuel consumption (standard test method)	9 liters per 100 km (26 US mpg)
Min. octane rating	96 (RM)

TECHNICAL DATA

911 E

Vehcile type: 911 E

Engine type: 911 E

Engine

Type	Air cooled four-stroke gasoline engine combined to form a single unit with clutch, transmission and rear axle. Mounted at rear of vehicle
Number of cylinders	6
Cylinder layout	Horizontally opposed 3 x 3
Bore	80 mm (3.150")
Stroke	66 mm (2.598")
Capacity	1991 cc (121.5 cu. in.)
Compression ratio	9.1 : 1
Compression test	9 - 11 kp/cm^2 (128 - 157 psi) - after 12 compression strokes
Total dry weight	Approx. 184 kg (406 lbs)
Crankcase	Light alloy, two-part
Cylinders	Separate cylinder blocks
Cylinder material	Biral (cast-iron with light alloy fins)
Cylinder heads	Separate, light alloy
Valve seats	Shrink fit
Valve guides	Shrink fit, special bronze
Spark plug seats	Heli-coil inserts
Crankshaft	Forged
Main bearings	8 plain bearings
Main bearings 1 - 7	3-layer split shells
Main bearing 8	1 piece bushing, hard lead
Main bearing 1	Guide bearing
Connecting rods	Forged steel, soft nitrided
Big end bearings	3-layer
Piston pin bushings	Kuprodur, turned
Pistons	Light alloy, forged, box section
Piston rings	2 compression rings, 1 oil scraper
Valve operation	One overhead camshaft for each cylinder bank
Camshaft	Cast, with 3 plain bearings mounted directly in cambox
Camshaft drive	Chains
Valve layout	Overhead
Valve springs	2 coil springs per valve
Valve clearances (adjust with engine cold)	
Inlet	0.10 mm (0.0039") Measured between valve and rocker
Exhaust	0.10 mm (0.0039")
Valve test timing (measured with 1 mm/0.04" valve clearance)	
Inlet opens before TDC	29°
Inlet closes after BDC	39°
Exhaust opens before BDC	39°
Exhaust closes after TDC	19°
Cooling	Air cooled with axial blower on generator
Blower drive	By V-belt from crankshaft

Air flow rate	1480 liters (52.5 cu. ft)/sec at 6500 rpm
Lubrication	Dry sump with pressure oil circulation
Oil cooling	Oil cooler on crankcase within flow from blower
Oil pressure gauge	Electric
Ignition	High tension battery/condenser ignition
Ignition transformer (coil)	Bosch
Distributor	Bosch
Contact breaker points (min.)	0.3 mm (0.012")
Ignition point	30^{o} before TDC at 6000 rpm
Firing order	1 - 6 - 2 - 4 - 3 - 5
Spark plugs	
Bosch	W 265 P 21, W 265 T 2SP
Spark plug thread	14 x 1.25 mm
Spark plug gap	0.35 mm (0.014")

Clutch

Type	Fichtel and Sachs - M 215 K single dry plate
Clutch pedal free travel	Approx. 20 mm (0.8")
Total lining area	203 cm^2 (31 sq. in.)

Fuel system

Fuel injection	Bosch 6 element double row injection pump
Air cleaner	Intake air muffler with Micronic element
Fuel pump	One electric fuel pump
Delivery pressure of electric pump	0.8 $\pm$ 0.2 atm (11.38 $\pm$ 2.84 psi)
Flow rate of electric pump	approx. 110 liters (29.1 US gal.)/hr.
Fuel purification	Mesh filter in fuel tank
Fuel filter	Micro filter in front of injection pump with built-in restrictor valve

Electrical system

Service voltage	12 Volt
Batteries	2 x 12 Volt, 36 amp/hr.
Generator	Bosch K 1 - 14V 770 W
Regulator	Bosch VDN 1
Crankshaft - Generator shaft drive ration	Approx. 1 : 1.4
Starter	Bosch EB (12 V 0.8 hp)
2 Headlights, high and low beam (Quartz-iodine)	Each 2 x H 1 55 W
2 Headlights, high and low beam (spherical bulbs with vertical dimming) for countries driving on left only	Each 45/40 Watt
for asymmetric low beam	Each 45/40 Watt
2 side lights for all countries except USA, inside headlight units	
for USA, in front turn indicators	Each 4 Watt

4 side boundary lights in front and rear turn indicators (USA only)	Each 4 Watt
2 rear lights in turn indicator - stop - rear light units	Each 5 Watt
Emergency warning flasher system (front and rear turn indicators)	
2 front turn indicators	Each 18 Watt
2 turn indicator - stop lights	Each 18 Watt
2 license plate lights	Each 4 Watt
1 reversing light	25 Watt
Interior light (2 fitted to Coupé)	Each 10 Watt
Glove box light	10 Watt
Revolution counter - instrument lighting	2 Watt
High beam telltale	2 Watt
Turn indicator telltale	2 Watt
Combined instrument lighting	2 Watt
Generator telltale	2 Watt
Oil pressure telltale	2 Watt
Speedometer lighting	2 Watt
Fuses	
Window lifts, windshield wipers, emergency warning light	25/40 Amp.
Cigar lighter, stop light, sliding roof	16/25 Amp.
High beam, low beam	8/15 Amp.
Turn indicators, side lights, license plate lights	5/ 9 Amp.

Transmission and rear axle

Type	5-speed gearbox and differential in combined housing
Manual gearbox	5 forward gears with Porsche servo synchromesh
For 1st to 5th gear ratios, see gearbox diagram, group R	
Reverse gear ratio	3.1473 : 1
Gear shift	Rod linkage with ball joint gear shift lever in center of floor
Final drive	Spiral bevel pinion, bevel pinion differential option: limited - slip differential
Rear axle ratio	4.428 : 1

Chassis

Frame	Welded box section steel feet, welded to superstructure
Suspension, front	Independent, with wishbones and spring struts
rear	Independent, semi-trailing arms, drive to rear wheels by half shafts
Springing, front	1 self-levelling hydropneumatic spring strut per wheel
rear	1 round section torsion bar, horizontally mounted, per wheel
Rear radius arm settings (approx. alignment value)	$36^{o}30' - 37^{o}$

Shock absorbers, front	In spring strut
rear	Double acting telescopic shock absorbers
Steering	ZF - rack and pinion
Overall ratio	17.78 : 1 (at straight ahead position)
Number of turns of steering wheel from lock to lock	Approx. 3.1
Min. turning circle	Approx. 10.7 meters (35 ft. 2 in.)
Toe-in, front	0^{o}
rear	$0^{o} \pm 10'$
Camber, front	$0^{o} \pm 20'$
rear	$-50' \pm 20'$
Kingpin inclination	$10^{o}55'$
Castor	$6^{o}45' \pm 45'$
Toe-out at 20^{o} wheel lock	0^{o} to 30' towards toe-in
Wheels	Light alloy, forged
Rims	6 J x 15, for USA and Sportomatic 5 1/2 J x 14
Tire pressures (suggested), front	1.8 atm (26 psi); for speeds above 200 kph (124 mph):
	2.2 atm (31 psi)
rear	2.0 atm (28 psi); for speeds above 200 kph (124 mph):
	2.4 atm (34 psi)
Service brake (foot brake)	Disc brakes
Service brake operating system	Hydraulic
Effective total rubbed area	257 cm^2 (39.2 sq. in.)
Brake disc diameter, front	282.8 mm (11.1 in.), internally ventilated
rear	290 mm (11.4 in.), internally ventilated
Effective brake disc diameter	
front	228 mm (8.97 in.)
rear	244 mm (9.61 in.)
Parking brake	Operates mechanically on both rear wheels

Superstructure

Type	All steel body shell welded to frame, dropped nose section, fast back on Coupé model
Doors	2 doors, front hinged
Width	1050 mm (41.3 in.) mean width
Opening angle	Approx. 70^{o}
Windows	
Windshield	One piece, curved in both planes
Door windows	Fully retracting winding windows
Rear side windows	Front hinged with locking catch
Rear window	Full width, curved, electrically heated
Type of glass	Safety glass
Windshield wipers	Electric, 2 parallel wiper arms
Opening panels	
front	Rear hinged, with hydraulic prop, released from inside the car
rear	Top hinged, with hydraulic prop, released from inside the car
Seats	
Number of seats	2 / 2
front	2 separate adjustable seats with reclining mechanism
rear	2 emergency seats with seat backs folding forwards to provide a baggage shelf

Dashboard	Speedometer with total and trip distance recorders, side-light telltale, illuminated Electric revolution counter with built-in telltales for high beam and turn indicators, illuminated Combined instrument with oil temperature gauge, oil pressure gauge and generator telltale, illuminated Clock 3-position switch for windshield wipers on steering column outer tube Ignition/starter switch, main light switch Cigar lighter, ashtray, lockable glove box, grab handle Turn indicator/low beam/headlight flasher switch on steering column Steering wheel with horn push
Interior equipment	
Floor	Fitted carpet
Center tunnel	Carpet trim
Front side panels	Carpet trim
Doors and side panels	Upholstered
Roof lining	Plastic material
Heating	Remote controlled warm air heater with hot and cold air mixing, 2 defroster nozzles for windshield and 2 warm air outlets inside members below the doors
Ventilation	Flap controlled fresh air plenum chamber, with 3-speed blower and air distribution system, centralized control unit
Various	
Bumpers	Front and rear, each with two overrider horns
Spare wheel	Thief-proof mounting under front lid
Fuel tank	In front compartment
Tools and accessories	In front compartment

Dimensions and weights

Wheelbase	2268 mm (89. 3")
Track front	1374 mm (54. 0") - 14" rims = 1364 mm (53. 7")
rear	1355 mm (53. 3") - 14" rims = 1345 mm (52. 9")
Length	4163 mm (163. 8")
Width	1610 mm (63. 4")
Height (unladen)	1320 mm (52. 0") - Coupé
Overhang, front	865 mm (34. 1")
rear	1055 mm (41. 6")
Ground clearance (laden)	150 mm (5. 9")
Ground clearance between wheels	140 mm (5. 5")
Dry weight (DIN)	1020 kg (2249 lbs)
Permitted total weight	1400 kg (3087 lbs)
Permitted axle load, front	600 kg (1323 lbs)
rear	840 kg (1773 lbs)
Weight of engine, ready to install, without oil ... approx.	184 kg (406 lbs)
Weight of transmission, ready to install, with oil ... approx.	50 kg (110 lbs)

Filling capacities

Fuel tank	Approx. 62 liters (16.4 US gal.), including 6 liters (1.6 US gal.) reserve
Engine and oil tank	Approx. 9 liters (19 US pints) branded HD oil; in summer SAE 30, in winter SAE 20 for temperatures from -15°C (+5°F) to 0°C (32°F), SAE 10 for temperatures below -15°C (+5°F)
Transmission and differential	Approx. 2.5 liters (5.3 US pints) SAE 90 hypoid
Brake fluid reservoir	Approx. 0.2 liters (0.42 US pints)
Windshield washer	Approx. 2 liters (4.2 US pints)

Performance

Output	140 BHP (DIN)
at engine speed	6500 rpm
Maximum torque	17.8 mkp (128.8 lb/ft)
at engine speed	4500 rpm
Mean piston speed at maximum output	14.3 m/sec (2910 ft/min)
Mean effective pressure at maximum engine output	9.75 kp/cm^2 (138.7 psi)
Min. fuel consumption	228 g/BHP/hr
at engine speed	3300 rpm
Maximum road speed	215 kph (133 mph)
Output per liter	70 BHP
Power/weight ratio (ready for road)	7.8 kg. (17.2 lbs)/BHP (DIN)
Speeds in indirect ratios (theoretical)	See transmission diagrams, group R

Fuel consumption

Fuel consumption (standard test method)	9.6 liters per 100 km (24.5 US mpg)
Min. octane rating	Approx. 98 - 100 (RM)

911 S

TECHNICAL DATA

Vehicle type: 911 S

Engine type: 911 S

Engine

Type	Air cooled four-stroke gasoline engine combined to form a single unit with clutch, transmission and rear axle. Mounted at rear of vehicle
Number of cylinders	6
Cylinder layout	Horizontally opposed 3 x 3
Bore	80 mm (3.150")
Stroke	66 mm (2.598")
Capacity	1991 cc (121.5 cu. in.)
Compression ratio	9.9 : 1
Compression test	9 - 11 kp/cm^2 (128 - 157 psi) - after 12 compression strokes
Total dry weight	Approx. 184 kg (406 lbs)
Crankcase	Light alloy, two-part
Cylinders	Separate cylinder blocks
Cylinder material	Biral (cast-iron with light alloy fins)
Cylinder heads	Separate, light alloy
Valve seats	Shrink fit
Valve guides	Shrink fit, special bronze
Spark plug seats	Heli-coil inserts
Crankshaft	Forged
Main bearings	8 plain bearings
Main bearings 1 - 7	3-layer split shells
Main bearing 8	1 piece bushing, hard lead
Main bearing 1	Guide bearing
Connecting rods	Forged steel, soft nitrided
Big end bearings	3-layer
Piston pin bushings	Kuprodur, turned
Pistons	Light alloy, forged, box section
Piston rings	2 compression rings, 1 oil scraper
Valve operation	One overhead camshaft for each cylinder bank
Camshaft	Cast, with 3 plain bearings mounted directly in cambox
Camshaft drive	Chains
Valve layout	Overhead
Valve springs	2 coil springs per valve
Valve clearances (adjust with engine cold)	
Inlet	0.10 mm (0.0039") Measured between valve and rocker
Exhaust	0.10 mm (0.0039")
Valve test timing (measured with 1 mm/0.04" valve clearance)	
Inlet opens before TDC	38°
Inlet closes after BDC	50°
Exhaust opens before BDC	40°
Exhaust closes after TDC	20°
Cooling	Air cooled with axial blower on generator
Blower drive	By V-belt from crankshaft

Air flow rate	1550 liters (54.2 cu. ft)/sec at 6800 rpm
Lubrication	Dry sump with pressure oil circulation
Oil cooling	Oil cooler on crankcase within flow from blower
Oil pressure gauge	Electric
Ignition	High tension battery/condenser ignition
Ignition transformer (coil)	Bosch
Distributor	Bosch
Contact breaker points (min.)	0.3 mm (0.012")
Ignition point	30^{o} before TDC at 6000 rpm
Firing order	1 - 6 - 2 - 4 - 3 - 5
Spark plugs	
Bosch	W 265 P 21, W 265 T 2SP
Spark plug thread	14 x 1.25 mm
Spark plug gap	0.35 mm (0.014")

Clutch

Type	Fichtel and Sachs - M 215 K single dry plate
Clutch pedal free travel	Approx. 20 mm (0.8")
Total lining area	203 cm^2 (31 sq. in.)

Fuel system

Fuel injection	Bosch 6 element double row injection pump
Air cleaner	Intake air muffler with Micronic element
Fuel pump	One electric fuel pump
Delivery pressure of electric pump	0.8 $\pm$ 0.2 atm (11.38 $\pm$ 2.84 psi)
Flow rate of electric pump	Approx. 110 liters (29.1 US gal.)/hr.
Fuel purification	Mesh filter in fuel tank
Fuel filter	Micro filter in front of injection pump with built-in restrictor valve

Electrical system

Service voltage	12 Volt
Batteries	2 x 12 Volt, 36 amp/hr.
Generator	Bosch K 1 - 14V 770 W
Regulator	Bosch VDN 1
Crankshaft - Generator shaft drive ration	Approx. 1 : 1.4
Starter	Bosch EB (12 V 0.8 hp)
2 Headlights, high and low beam (Quartz-iodine)	Each 2 x H1 55 W
2 Headlights, high and low beam (spherical bulbs with vertical dimming) for countries	
driving on left only	Each 45/40 Watt
for asymmetric low beam	Each 45/40 Watt
2 side lights for all countries except USA, inside headlight units	
for USA, in front turn indicators	Each 4 Watt

4 side boundary lights in front rear turn indicators (USA only)	Each 4 Watt
2 rear lights in turn indicator - stop - rear light units	Each 5 Watt
Emergency warning flasher system (front and rear turn indicators)	
2 front turn indicators	Each 18 Watt
2 turn indicator - stop lights	Each 18 Watt
2 license plate lights	Each 4 Watt
1 reversing light	25 Watt
Interior light (2 fitted to Coupé)	Each 10 Watt
Glove box light	10 Watt
Revolution counter - instrument lighting	2 Watt
High beam telltale	2 Watt
Turn indicator telltale	2 Watt
Combined instrument lighting	2 Watt
Generator telltale	2 Watt
Oil pressure telltale	2 Watt
Speedometer lighting	2 Watt
Fuses	
Window lifts, windshield wipers, emergency warning light	25/40 Amp.
Cigar lighter, stop light, sliding roof	16/25 Amp.
High beam, low beam	8/15 Amp.
Turn indicators, side lights, license plate lights	5/ 9 Amp.

Transmission and rear axle

Type	5-speed gearbox and differential in combined housing
Manual gearbox	5 forward gears with Porsche servo synchromesh
For 1st to 5th gear ratios, see gearbox diagram, group R	
Reverse gear ratio	3.1473 : 1
Gear shift	Rod linkage with ball joint gear shift lever in center of floor
Final drive	Spiral bevel pinion, bevel pinion differential option: limited - slip differential
Rear axle ratio	4.428 : 1

Chassis

Frame	Welded box section steel feet, welded to superstructure
Suspension, front	Independent, with wishbones and spring struts
rear	Independent, semi-trailing arms, drive to rear wheels by half shafts
Springing, front	1 self-levelling hydropneumatic spring strut per wheel
rear	1 round section torsion bar, horizontally mounted, per wheel
Rear radius arm settings (approx. alignment value)	$36^{\circ}30' - 37^{\circ}$

Shock absorbers, front	In spring strut
rear	Double acting telescopic shock absorbers
Stabilizers	Front and rear, transverse
Steering	ZF-rack and pinion
Overall ratio	17.78 : 1 (at straight ahead position)
Number of turns of steering wheel from lock to lock	Approx. 3.1
Min. turning circle	Approx. 10.7 meters (35 ft. 2 in.)
Toe-in, front	0^{o}
rear	$0^{o} \pm 10'$
Camber, front	$0^{o} \pm 20'$
rear	$-50' \pm 20'$
Kingpin inclination	$10^{o}55'$
Castor	$6^{o}45' \pm 45'$
Toe-out at 20^{o} wheel lock	0^{o} to 30' towards toe-in
Wheels	Light alloy, forged
Rims	6 J x 15
Tires	185/70 VR-15
Tire pressures (suggested), front	1.8 atm (26 psi); for speeds above 200 kph (124 mph): 2.2 atm (31 psi)
rear	2.0 atm (28 psi); for speeds above 200 kph (124 mph): 2.4 atm (34 psi)
Service brake (foot brake)	Disc brakes
Service brake operating system	Hydraulic
Effective total rubbed area	257 cm^2 (39.2 sq. in.)
Brake disc diameter, front	282.8 mm (11.1 in.), internally ventilated
rear	290 mm (11.4 in.), internally ventilated
Effective brake disc diameter front	228 mm (8.97 in.)
rear	244 mm (9.61 in.)
Parking brake	Operates mechanically on both rear wheels

Superstructure

Type	All steel body shell welded to frame, dropped nose section, fast back on Coupé model
Doors	2 doors, front hinged
Width	1050 mm (41.3 in.) mean width
Opening angle	Approx. 70^{o}
Windows	
Windshield	One piece, curved in both planes
Doors windows	Fully retracting winding windows
Rear side windows	Front hinged with locking catch
Rear window	Full width, curved, electrically heated
Type of glass	Safety glass
Windshield wipers	Electric, 2 parallel wiper arms
Opening panels	
front	Rear hinged, with hydraulic prop, released from inside the car
rear	Top hinged, with hydraulic prop, released from inside the car
Seats	
Number of seats	2 / 2
front	2 separate adjustable seats with reclining mechanism
rear	2 emergency seats with seat backs folding forwards to provide a baggage shelf

Dashboard	Speedometer with total and trip distance recorders, side-light telltale, illuminated Electric revolution counter with built-in telltales for high beam and turn indicators, illuminated Combined instrument with oil temperature gauge, oil pressure gauge and generator telltale, illuminated Clock 3-position switch for windshield wipers on steering column outer tube Ignition/starter switch, main light switch Cigar lighter, ashtray, lockable glove box, grab handle Turn indicator/low beam/headlight flasher switch on steering column Steering wheel with horn push
Interior equipment	
Floor	Fitted carpet
Center tunnel	Carpet trim
Front side panels	Carpet trim
Doors and side panels	Upholstered
Roof lining	Plastic material
Heating	Remote controlled warm air heater with hot and cold air mixing, 2 defroster nozzles for windshield and 2 warm air outlets inside members below the doors
Ventilation	Flap controlled fresh air plenum chamber, with 3-speed blower and air distribution system, centralized control unit
Various	
Bumpers	Front and rear, each with two overrider horns
Spare wheel	Thief-proof mounting under front lid
Fuel tank	In front compartment
Tools and accessories	In front compartment

Dimensions and weights

Wheelbase	2268 mm (89.3")
Track front	1374 mm (54.0")
rear	1355 mm (53.3")
Length	4163 mm (163.8")
Width	1610 mm (63.4")
Height (unladen)	1320 mm (52.0") - Coupé
Overhang, front	865 mm (34.1")
rear	1055 mm (41.6")
Ground clearance (laden)	150 mm (5.9")
Ground clearance between wheels	140 mm (5.5")
Dry weight (DIN)	995 kg (2194 lbs)
Permitted total weight	1400 kg (3087 lbs)
Permitted axle load	
front	600 kg (1323 lbs)
rear	840 kg (1773 lbs)
Weight of engine, ready to install, without oil ..... approx.	184 kg (406 lbs)
Weight of transmission, ready to install, with oil ..... approx.	50 kg (110 lbs)

Filling capacities

Fuel tank	Approx. 62 liters (16,4 US gal.), including 6 liters (1, 6 US gal.) reserve
Engine and oil tank	Approx. 9 liters (19 US pints) branded HD oil; in summer SAE 30, in winter SAE 20 for temperatures from -15°C (+ 5°F) to 0°C (32°F), SAE 10 for temperatures below -15°C (+ 5°F)
Transmission and differential	Approx. 2, 5 liters (5, 3 US pints) SAE 90 hypoid
Brake fluid reservoir	Approx. 0, 2 liters (0, 42 US pints)
Windshield washer	Approx. 2 liters (4, 2 US pints)

Performance

Output	170 BHP (DIN)
at engine speed	6800 rpm
Maximum torque	18, 5 mkp (133, 8 lb/ft)
at engine speed	5500 rpm
Mean piston speed at maximum output	14, 9 m/sec (2934 ft/min)
Mean effective pressure at maximum engine output	11, 3 kp/cm^2 (160, 7 psi)
Min, fuel consumption	236 g/BHP/hr
at engine speed	4000 rpm
Maximum road speed	225 kph (140 mph)
Output per liter	85 BHP
Power/weight ratio (ready for road)	6, 3 kg (13, 9 lbs)/BHP (DIN)
Speeds in indirect ratios (theoretical)	See transmission diagrams, group R

Fuel consumption

Fuel consumption (standard test method	10, 2 liters per 100 km (23 US mpg)
Min, octane rating ..... approx.	98 - 100 (RM)

TECHNICAL DATA - TYPE 911 C

	911 T	911 E	911 S
Engine			
Type	air cooled, four stroke, gasoline combustion engine, unitized with clutch and drive train at rear of vehicle		
Number of cylinders	6	6	6
Cylinder arrangement	horizontally opposed six, three cylinders per bank		
Bore	84 mm (3.31 in.)	84 mm (3.31 in.)	84 mm (3.31 in.)
Stroke	66 mm (2.60 in.)	66 mm (2.60 in.)	66 mm (2.60 in.)
Total piston displacement	2195 cc (134 CID)	2195 cc (134 CID)	2195 cc (134 CID)
Compression ratio	8.6 : 1	9.1 : 1	9.8 : 1
Compression pressure	9 - 11 kp/cm^2 (128 - 157 psi), max. pressure difference between cylinders 1.5 kp/cm^2 (21.4 psi) with oil temperature of 60°C minimum		
Horsepower @ rpm	125 DIN HP/5800 (142 SAE HP)	155 DIN HP/6200 (175 SAE HP)	180 DIN HP/6500 (200 SAE HP)
Torque @ rpm	18 mkp (148 ft.lbs.)/4200	19.5 mkp (160 ft.lbs.)/4500	20.3 mkp (164 ft.lbs.)/5200
Maximum engine speed	6500 rpm	6700 rpm	7200 rpm
Cut-off speed of rotor in ignition distributor	6500 ± 100 rpm	7100 ± 100 rpm	7300 ± 100 rpm
Required fuel octane rating	96 (RON)	98 (RON)	98 (RON)
Engine weight approx.	176 kp (387 lbs.)	182 kp (400 lbs.)	182 kp (400 lbs.)
Cooling	air cooled		
Cooling fan drive	off crankshaft by V-belt		
Blower air flow	1230 1/sec @ 5800 rpm of crankshaft	1380 1/sec @ 6500 rpm of crankshaft	1380 1/sec @ 6500 rpm of crankshaft rpm
Lubric ation	dry sump	dry sump	dry sump

	911 T	911 E	911 S
Oil cooling	oil cooler on crankcase in air stream of blower	oil cooler on crankcase in air stream of blower	oil cooler on crankcase in air stream of blower; supplemental oil cooler in front of vehicle
Oil pressure indication	by warning light	by gauge (in psi)	by gauge (in psi)
Oil filter	full flow system	full flow system	full flow system
Oil capacity, w/filter	9 ltr (9.5 qts)	9 ltr (9.5 qts)	9 ltr (9.5 qts) (first filling approx. 10 ltr/ 10.5 qts incl. oil cooler)
Oil consumption	1.5 - 2.0 qts/600 mi	1.5 - 2.0 qts/600 mi	1.5 - 2.0 qts/600 mi
Cylinder heads	light alloy, finned individual castings for each cylinder		light alloy (Y-alloy) finned individual castings for each cylinder
Valve seat inserts	shrunk-in, grey cast iron	shrunk-in, grey cast iron	shrunk-in, grey cast iron
Valve guides	shrunk-in, special bronze	shrunk-in, special bronze	shrunk-in, special bronze
Spark plug threads	14x1.25, machined into cylinder heads	14x1.25, machined into cylinder heads	14x1.25, machined into cylinder heads
Valve timing	OHC, 1 cam per cylinder bank	OHC, 1 cam per cylinder bank	OHC, 1 cam per cylinder bank
Camshaft	cast steel, in three plain bearings in base metal of camshaft housing		
Camshaft drive	by chain	by chain	by chain
Valves	1 intake and 1 exhaust valve per cylinder		
Valve arrangement	overhead in "V"	overhead in "V"	overhead in "V"
Exhaust valves	sodium cooled, with reinforced seat		
Valve springs	2 coil springs per valve		
Valve clearance, cold:			
intake	0.10 mm (.004 in.) measured between valve stem and rocker arm		
exhaust	0.10 mm (.004 in.)		

	911 T	911 E	911 S
Valve timing with 1 mm (.040 in.) valve clearance:			
inlet opens	15° BTC	20° BTC	38° BTC
inlet closes	29° ABC	34° ABC	50° ABC
exhaust opens	41° BBC	40° BBC	40° BBC
exhaust closes	5° BTC	6° ATC	20° ATC
Cylinders	individual, grey cast iron with integral cooling fins	individual, cast iron with finned light alloy jacket	individual, cast iron with finned light alloy jacket
Pistons	die-cast light alloy	die-cast light alloy	forged light alloy
Piston pins	floating, circlip secured	floating, circlip secured	floating, circlip secured
Piston rings	2 compression rings 1 oil scraper ring	2 compression rings 1 oil scraper ring	2 compression rings 1 oil scraper ring
Crankcase	two-piece, light alloy pressure casting	two-piece, light alloy pressure casting	two-piece, light alloy pressure casting
Intermediate shaft	in plain journal bearings	in plain journal bearings	in plain journal bearings
Crankshaft	forged with 8 main bearings	forged with 8 main bearings	forged with 8 main bearings
Main bearings 1-7	tri-metal, split inserts	tri-metal, split inserts	tri-metal, split inserts
Main bearing 1	thrust bearing	thrust bearing	thrust bearing
Main bearing 8	hard lead sleeve	hard lead sleeve	hard lead sleeve
Connecting rods	forged steel	forged steel	forged steel (stress relieved)
Connecting rod bearings	three layer, split inserts	three layer, split inserts	three layer, split inserts
Piston pin bushings	pressed-in bronze bushings	pressed-in bronze bushings	pressed-in bronze bushings
Clutch	single plate, dry (pulltype)	single plate, dry (pulltype)	single plate, dry (pulltype)
Ignition system	capacitive discharge, battery ignition	capacitive discharge, battery ignition	capacitive discharge, battery ignition
Ignition transformer	Bosch	Bosch	Bosch

	911 T	911 E	911 S
Distributor type	Marelli S 112 BX or Bosch JFDRG 0231159008	Bosch JFDRG 0231159006	Bosch JFDRG 0231159007
Ignition timing	35^{o} BTC @ 6000 rpm	30^{o} BTC @ 6000 rpm	30^{o} BTC @ 6000 rpm
Firing order	1-6-2-4-3-5	1-6-2-4-3-5	1-6-2-4-3-5
Spark advance	centrifugal	centrifugal	centrifugal
Dwell angle, breaker point gap	Marelli = $40^{o} \pm 3^{o}$, or 0.4 $\pm$ 0.03 mm (0.016 $\pm$ 0.001 in.); Bosch = $38^{o} \pm 3^{o}$	$38^{o} \pm 3^{o}$, or 0.3 mm (0.012 in.) minimum	$38^{o} \pm 3^{o}$, or 0.3 mm (0.012 in.) minimum
Spark plugs	Beru 240/14/3, 250/14/3P	Beru 265/14/3P	Beru 265/14/3P
Optional brand	Bosch W230/T30, W250/P21	Bosch W265 P 21	Bosch W265 P 21
Spark plug gap	all plugs 0.6 mm	all plugs 0.6 mm	all plugs 0.6 mm
Fuel system	triple-throat downdraft Zenith carburetors	six-plunger, double-row Bosch fuel injection pump	six-plunger, double-row Bosch fuel injection pump
Air cleaner	induction silencer with micronic filter cartridge	induction silencer with micronic filter cartridge	induction silencer with micronic filter cartridge
Fuel pump	1 electric roll-cell pump	1 electric roll-cell pump	1 electric roll-cell pump
Delivery rate	80 ltr/h (.352 gpm)	125 ltr/h (.55 gpm)	125 ltr/h (.55 gpm)
Delivery pressure	0.3 atm (4.3 psi)	1 atm (14.2 psi)	1 atm (14.2 psi)
Pressure relief valve opens at	0.2 - 0.3 atm	approx. 2 atm	approx. 2 atm
Fuel filter	fine screen in fuel pump	fine screen ahead of fuel injection pump with integrated reduction valve	fine screen with integrated reduction valve
Electrical system	12 volt	12 volt	12 volt
Battery rating	2x12 volt, 36 Ah each	2x12 volt, 36 Ah each	2x12 volt, 36 Ah each
Alternator rating	770 W, AC	770 W, AC	770 W, AC
Voltage regulator	same brand as alternator	same brand as alternator	same brand as alternator

	911 T	911 E	911 S
Crankshaft/alternator ratio	approx. 1:1.4	approx. 1:1.4	approx. 1:1.4
Starter motor	Bosch 12 V, 0.8 HP	Bosch 12 V, 0.8 HP	Bosch 12 V, 0.8 HP
2 sealed beam headlights	50/40 W each	50/40 W each	50/40 W each
4 sidemarker lights in front and rear directional signal lamps (USA only)	4 W each	4 W each	4 W each
2 tail lights in the directional signal and stop light units	5 W each	5 W each	5 W each
Emergency flasher lights (front and rear directional signal units)	21 W each	21 W each	21 W each
2 directional signal and stop lights	21 W each	21 W each	21 W each
2 license plate lights	4 W each	4 W each	4 W each
2 backup lights	18 W each	18 W each	18 W each
Interior light (2 in Coupe models)	10 W each	10 W each	10 W each
Glove compartment light	10 W	10 W	10 W
Instrument illumination	2 W	2 W	2 W
Warning lights	2 W	2 W	2 W

	911 T	911 E	911 S
Luggage compartment light	5 W	5 W	5 W
Fuses:			
Window regulators, windshield wipers, emergency flasher	25/40 amp	25/40 amp	25/40 amp
Cigarette lighter, stop lights, sun roof	16/25 amp	16/25 amp	16/25 amp
Headlight high/low beams, parking lights, directional signal lights	8/15 amp	8/15 amp	8/15 amp
License plate light	5/9 amp	5/9 amp	5/9 amp
Transmission and Rear Axle:			
Type	transmission and differential in common housing		
Transmission	4 forward speeds with Porsche synchronization, 5 speeds optional	5 forward speeds with Porsche synchronization	5 forward speeds with Porsche synchronization
Reverse gear ratio	i = 1:3.1473	i = 1:3.1473	i = 1:3.1473
Gearshift type	mechanical linkage with floor-mounted shift lever	mechanical linkage with floor-mounted shift lever	mechanical linkage with floor-mounted shift lever
Differential drive	spiral bevel gears, bevel gear differential; limited slip differential optional		
Reduction ratio	7:31, i = 4.428	7:31, i = 4.428	7:31, i = 4.428
Rear axle drive	drive shafts with 2 CV joints per shaft		
Chassis:			
Frame	welded assembly, box-section, unitized with body		

	911 T	911 E	911 S
Front suspension	independent with struts and transverse control arms		
Rear suspension	independent with triangulated control arms; power transfer over half-axles		
Front springing	1 round longitudinal torsion bar per wheel, or 1 suspension strut per wheel	1 hydro-pneumatic suspension strut per wheel	1 round longitudinal torsion bar per wheel, or 1 suspension strut per wheel
Rear springing	1 round transverse torsion bar per wheel		
Basic nominal inclination of rear radius arms	36°30' to 37°	36°30' to 37°	36°30' to 37°
Shockabsorbers:			
front:	shockabsorber struts telescopic, double-action shockabsorbers	hydro-pneumatic suspension struts telescopic, double-action shockabsorbers	shockabsorber struts telescopic, double-action shockabsorbers
rear:			
Steering type	ZF rack & pinion	ZF rack & pinion	ZF rack & pinion
Steering ratio	1:17.78 overall	1:17.78 overall	1:17.78 overall
Stabilizers	-	-	front and rear, transversely mounted
Steering wheel turns lock-to-lock	approx. 3.1	approx. 3.1	approx. 3.1
Smallest turning circle diameter	approx. 10.7 m (35.0 ft.)	approx. 10.7 m (35.0 ft.)	approx. 10.7 m (35.0 ft.)
Toe-in, preloaded with 15 kp (33.1 lbs) front	0°	0°	0°
rear	0° ± 10'	0° ± 10'	0° ± 10'
Camber, front	0° ± 20', max. deviation left to right 20'	0° ± 20', max. deviation left to right 20'	0° ± 20', max. deviation left to right 20'
rear	-50' ± 20'	-50' ± 20'	-50' ± 20'
Steering pivotangle	10°55'	10°55'	10°55'
Caster	6°5' ± 15'	6°5' ± 15'	6°5' ± 15'
Angle variation @ 20° wheel turn	0° to 30'	0° to 30'	0° to 30'

	911 T	911 E	911 S
Wheels	steel	forged light alloy	forged light alloy
Wheel rims	5 1/2J x 15	6J x 15	6 J x 15
Nominal tire pressures, front	1.8 atm (26 psi)	1.8 atm (26 psi) 2.2 atm (32 psi) for speeds over 125 mph	1.8 atm (26 psi) 2.2 atm (32 psi) for speeds over 125 mph
rear	2.0 atm (29 psi)	2.0 atm (29 psi) 2.4 atm (35 psi) for speeds over 125 mph	2.0 atm (29 psi) 2.4 atm (35 psi) for speeds over 125 mph
Service brake	dual circuit disc brakes	dual circuit disc brakes	dual circuit disc brakes
Service brake actuation	hydraulic	hydraulic	hydraulic
Total effective brake area (service brake)	210 cm^2 (32.55 sq.in.)	257 cm^2 (39.84 sq.in.)	257 cm^2 (39.84 sq.in.)
Brake disc diameter front	282.5 mm (11.12 in.), vented	282.5 mm (11.12 in.), vented	282.5 mm (11.12 in.), vented
rear	290.0 mm (11.42 in.), vented	290.0 mm (11.42 in.), vented	290.0 mm (11.42 in.), vented
Effective brake disc diameter front	235 mm (9.25 in.)	228 mm (8.98 in.)	228 mm (8.98 in.)
rear	244 mm (9.61 in.)	244 mm (9.61 in.)	244 mm (9.61 in.)
Parking brake	mechanical, acting on rear wheels	mechanical, acting on rear wheels	mechanical, acting on rear wheels
Body: Type	all-steel body unitized with frame, declining front contour, fastback rear in Coupe		
Doors	2 doors hinged on front posts		
Door width	1050 mm (41.3 in.) average	1050 mm (41.3 in.) average	1050 mm (41.3 in.) average
Door swing angle	approx. 70°	approx. 70°	approx. 70°
Windows: Windshield	single piece, constant radius, laminated safety glass, convex contour		
Door windows	crank-lowered	crank-lowered	crank-lowered
Rear side windows	hinged, with position lock	hinged, with position lock	hinged, with position lock

	911 T	911 E	911 S
Rear window	single piece, convex contour, electrically heated		
Glass type	safety glass		
Windshield wipers	electric, 2 parallel wiper arms		
Luggage compartment lid	hinged at rear, with hydraulic props, opened from passenger compartment		
Engine compartment lid	hinged at front, with hydraulic prop, opened from passenger compartment		
Instrument panel	illuminated speedometer incorporating odometer and trip mileage counter, and parking light warning light; illuminated transistorized tachometer with high beam warning light and directional signal indicator lights		
	illuminated oil temperature gauge with oil pressure and alternator control lamps	illuminated combination instrument incorporating an oil temperature gauge, oil pressure gauge, and alternator control lamp	
	illuminated fuel gauge with low fuel indivator lamp; illuminated clock; windshield wiper switch with 3 positions, mounted on the steering column; starter and ignition switch, light switch; illuminated cigarette lighter, ashtray, and lockable glove compartment; hand grip; steering column mounted control lever for directional signals, headlight dimmer and flasher switch; steering wheel with signal horn ring		
Heating	remote controlled hot air heating system; controls for blending heated air with fresh outside air; two defroster outlets at the windshield and two hot air outlets for heating passenger compartment leg area		

	911 T	911 E	911 S
Ventilation	fresh air ducts with three-speed fan and flow distribution control, actuation by a single control unit		
Weights and Measures			
Wheelbase	2268 mm (89.29 in.)		
Track, front	1362 mm (53.62 in.)	1374 mm (54.09 in.); 1364 mm (53.70 in.) with light alloy wheels	
rear	1343 mm (52.87 in.)	1355 mm (53.35 in.); 1345 mm (52.95 in.) with light alloy wheels	
Length	4163 mm (163.90 in.)		
Width	1610 mm (63.39 in.)		
Height (empty)	1320 mm (51.97 in.)		
Ground clearance, loaded	150 mm (5.91 in.)		
Body overhang, front	865 mm (34.06 in.)		
rear	1055 mm (41.54 in.)		
Empty weight (DIN)	1020 kp (2244 lbs)		
Max. permissible weight	1400 kp (3080 lbs)		
Max. axle load, front	600 kp (1320 lbs)		
rear	840 kp (1848 lbs)		
Max. trailer weight			
trailer with brakes	600 kp (1320 lbs)		
trailer without brakes	480 kp (1060 lbs)		
Performance:			
Max. speed	205 kmh (127 mph)	220 kmh (137 mph)	230 kmh (143 mph)
Power/weight ratio (1 occupant + DIN empty weight)	8.7 kp/DIN HP 15.8 lbs/SAE HP	7.1 kp/DIN HP 12.8 lbs/SAE HP	6.1 kp/DIN HP 11.2 lbs/SAE HP
Nominal fuel consumption	9.0 ltr/100 km (26.1 mpg)	9.5 ltr/100 km (24.7 mpg)	10.2 ltr/100 km (23.0 mpg)

	911 T	911 E	911 S
Capacities:			
Fuel tank	approx. 62 ltr, incl. 6 ltr reserve (16.4 gal, incl. 1.6 gal reserve)	approx. 62 ltr, incl. 6 ltr reserve (16.4 gal, incl. 1.6 gal reserve); 90 ltr (23.8 gal) tank optional	
Engine and oil tank	approx. 9 ltr premium HD oil (9.5 qts); summer SAE 30; winter SAE 20 in ambient temperatures of between -15°C and 0°C (+5°F and +32°F); SAE 10 in ambient temperatures below -15°C (+5°F)		
Transmission and differential	approx. 2.5 ltr (2.6 qts) Hypoid SAE 90 oil		
Hydraulic fluid reservoir	approx. 0.2 ltr (7 fl.oz.)		
Windshield washer reservoir	approx. 2.0 ltr (2.1 qts)		