

Engine & Cooling

Fuel

Ignition

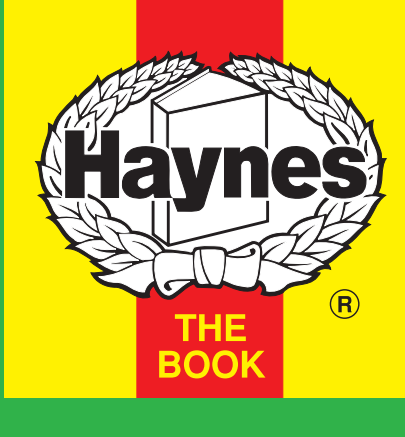
Electrical

Running gear

Torque settings

Capacities

Notes & Illustrations



Automotive Technical
DATA BOOK

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HELP

Engine and cooling system

911 Carrera & Speedster

1983 to 1989

Type		930/20
Capacity (cm ³) / number of cylinders		3164 / 6
Compression ratio / pressure	bar	10.3 / _
Oil pressure	bar	[3.5]
Oil temperature	°C	90
Valve clearance - inlet	mm	0.10
Valve clearance - exhaust	mm	0.10
Firing order		1-6-2-4-3-5
No 1 cylinder position		PEL
Thermostat opening temperature	°C	_
Radiator cap pressure	bar	_

Fuel system

911 Carrera & Speedster

1983 to 1989

Idle speed - manual [auto]	rpm	800±20
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	1.0 to 1.5
HC @ idle speed [3000 rpm] - see page VI	ppm	≤1200
CO2 @ idle speed [3000 rpm] - see page VI	%	_
O2 @ idle speed [3000 rpm] - see page VI	%	_
Carburettor / fuel injection		Bosch
Type / ref		DME Motronic
Main jet / needle		_
Injection pressure	bar	_
Pump pressure	bar	2.5±0.2
Octane rating	RON	98[L]

Ignition system

911 Carrera & Speedster

1983 to 1989

Type		DME Motronic
Ignition coil		Bosch 022 118 322
Primary resistance	ohms	0.4 to 0.7
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	_
Distributor		Bosch
Points gap (air gap)	mm	_
Dwell angle	° (%)	_
Condenser capacity	µF	_
Rotation		_
Ignition timing - basic [static	° Crankshaft @ rpm	3±3 ATDC @ 800±40
V = Vacuum NV = No Vacuum		
Total ignition advance	° Crankshaft @ rpm	26±2 BTDC @ 3000
	° Crankshaft @ rpm	_
	° Crankshaft @ rpm	_
Centrifugal check.	° Crankshaft @ rpm	Computer control
	° Crankshaft @ rpm	_
	° Crankshaft @ rpm	_
Vacuum range check	mbar	Computer control
Maximum vacuum advance	° Crankshaft	_
Spark plugs		Bosch/Champion
Type		WR4CC / RN3G
Electrode gap	mm	0.70

Electrical system

911 Carrera & Speedster

1983 to 1989

Battery	V / CC / RC	12 / 300 / 110 or 420 / 130
Alternator voltage / full load current / engine rpm		14.0 / _ / 3000
Starter motor current / voltage - cranking	A / V	_
- locked	A / V	_

Running gear

911 Carrera & Speedster

1983 to 1989

Brakes -		
Front (min. friction material thickness)	mm	2.0
Rear (min. friction material thickness)	mm	2.0

Tyres		
Saloon	Size	185/70x15: 215/60x15 ¹
Estate / Van	Size	_
Pressure - front / rear - Saloon	bar	2.0 / 2.5 ²
- Estate / Van	bar	_

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	+1.5±1.5
Camber		0±10'
Castor		+6°5'±15'
King pin inclination		+10°55'±15'

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	+2.0±2.0
Camber		-1° [Turbo-look: -30']±10'

Torque wrench settings

911 Carrera & Speedster

1983 to 1989

Cylinder head - stage 1	Nm	32
- stage 2	Nm	_
Cylinder head - stage 3	Nm	_
- stage 4	Nm	_
Big-end bearings	Nm	50 to 55
Main bearings	Nm	Crankcase: 35
Clutch cover	Nm	20 to 25
Flywheel [driveplate]	Nm	90
Front hubs	Nm	WSM
Rear hubs	Nm	Castle nut: 310 ³
Wheel nuts / bolts	Nm	130
Spark plugs	Nm	25 to 30

Capacities

911 Carrera & Speedster

1983 to 1989

Engine oil & filter	litres	10.0 ⁴
Gearbox - 4-speed [5-speed]	litres	3.1
Automatic transmission - refill	litres	_
Final drive	litres	WT
Cooling system	litres	_
Fuel tank	litres	80. 85 ►: 85

Notes and Illustrations

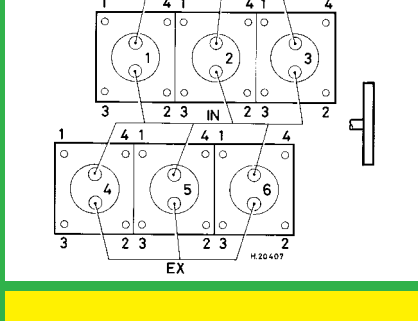
¹Turbo-look & 1989 MY: 205/55x16: 225/50x16

²Turbo-look & 1989 MY: 2.0 / 3.0

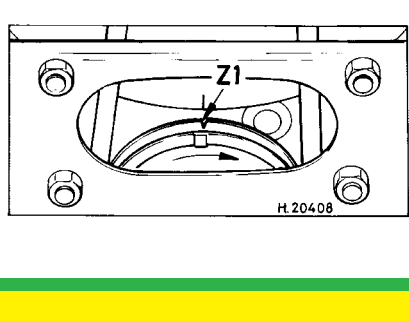
³Self-locking nut: 460

⁴13.0 with cooler

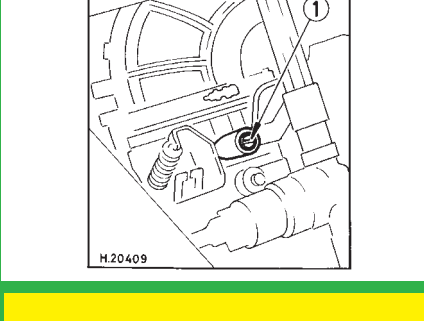
1: Idle speed 2: CO / Mixture



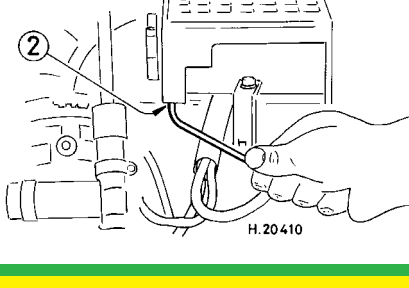
3164 cm³



3164 cm³, not CAT



DME Motronic, 911



DME Motronic, 911