

VOLKSWAGEN

Passat 1.6

1988 to 1993

Engine & Cooling

Fuel

Ignition

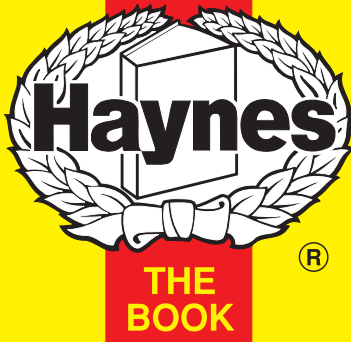
Electrical

Running gear

Torque settings

Capacities

Notes & Illustrations



Automotive Technical
DATA BOOK

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Engine and cooling system

Passat 1.6

1988 to 1993

Type	EZ. 6.91 ▶: ABN 55kW	
Capacity (cm ³) / number of cylinders	1595 / 4	
Compression ratio / pressure	bar	9.0 / ≥7.0
Oil pressure	bar	[2.0]
Oil temperature	°C	80
Valve clearance - inlet	mm	0: Hyd.
Valve clearance - exhaust	mm	0: Hyd.
Firing order	1-3-4-2	
No 1 cylinder position	TBE	
Thermostat opening temperature	°C	85 to 105
Radiator cap pressure	bar	1.3 to 1.5

Fuel system

Passat 1.6

1988 to 1993

Idle speed - manual [auto]	rpm	800±50
Fast idle speed - manual [auto]	rpm	—
CO @ idle speed [3000 rpm] - see page VI	%	1.0±0.5
HC @ idle speed [3000 rpm] - see page VI	ppm	≤1200
CO ₂ @ idle speed [3000 rpm] - see page VI	%	—
O ₂ @ idle speed [3000 rpm] - see page VI	%	—
Carburettor / fuel injection	Solex/Pierburg	
Type / ref	2E3 037 129 016B/C	
Main jet / needle	107.5, 125	
Injection pressure	bar	—
Pump pressure	bar	—
Octane rating	RON	91[E 91 RON]

Ignition system

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1988 to 1993

Type	TCI-H	
Ignition coil	Bosch	
Primary resistance	ohms	Green: 0.52 to 0.76. Grey 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	16±1 BTDC @ 800±50
V = Vacuum NV = No Vacuum	V	
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	0 @ 1100 to 1300
	° Crankshaft @ rpm	10 to 14 @ 1800
	° Crankshaft @ rpm	28 to 32 @ 4000
Vacuum range check	mbar	150 to 360
Maximum vacuum advance	° Crankshaft	11 to 15
Spark plugs	Bosch/Champion	
Type	W8DCO / N9CYX ¹	
Electrode gap	mm	0.70 to 0.80 ¹

Electrical system

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1988 to 1993

Battery	V / CC / RC	12 / 220 / 75
Alternator voltage / full load current / engine rpm	12.5 to 14.5 / _ / 3000	
Starter motor current / voltage - cranking	A / V	—
- locked	A / V	—

Running gear

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1988 to 1993

Brakes -		
Front (min. friction material thickness)	mm	7.0 with backing
Rear (min. friction material thickness)	mm	2.5

Tyres		
Saloon	Size	185/65x14: 195/60x14:195/55x15
Estate / Van	Size	185/65x14: 195/60x14:205/50x15
Pressure - front / rear - Saloon	bar	2.1 / 2.1
- Estate / Van	bar	2.1 / 2.1

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	[0±10°]
Camber	-1°20'±20'	
Castor	+1°40'±30' N/A	
King pin inclination	—	

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	[+25'±15'] ²
Camber	-1°40'±20' ³	

Torque wrench settings

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Cylinder head - stage 1	Nm	40
- stage 2	Nm	60
Cylinder head - stage 3	Nm	+ 90°
- stage 4	Nm	+ 90°
Big-end bearings	Nm	30 + 90°
Main bearings	Nm	65 ⁴
Clutch cover	Nm	20
Flywheel [driveplate]	Nm	60 + 90° N
Front hubs	Nm	265
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	110
Spark plugs	Nm	25

Capacities

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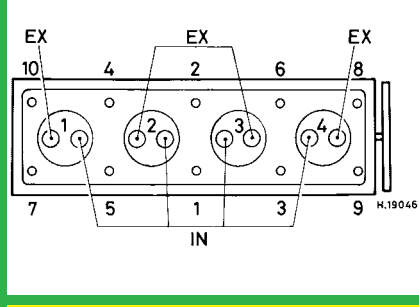
Engine oil & filter	litres	4.0
Gearbox - 4-speed [5-speed]	litres	2.0
Automatic transmission - refill	litres	—
Final drive	litres	WT
Cooling system	litres	6.5
Fuel tank	litres	70

Notes and Illustrations

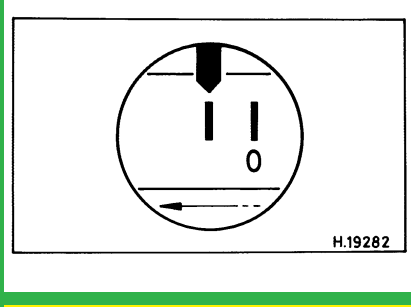
- ¹Coil with green sticker: W8DTC / N9BYC, gap: 0.90 to 1.10
- ²Chassis no. 31LE222 111 or 31LB108 393 ▶: [+20'±10']
- ³Chassis no. 31LE222 111 or 31LB108 393 ▶: -1°30'±10'
- ⁴Replace with fully threaded shank bolts: 65+90°

1: Idle speed

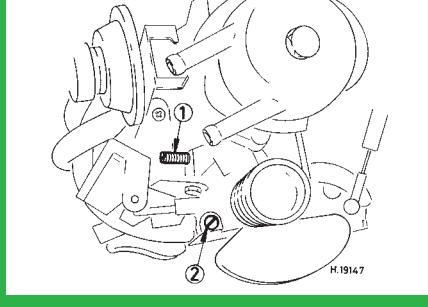
2: CO / Mixture



1595 cm³



1595 cm³



Solex / Pierburg 2E3