

VOLKSWAGEN

Transporter/Caravelle 2.5i

1994 to 1997

Engine & Cooling

Fuel

Ignition

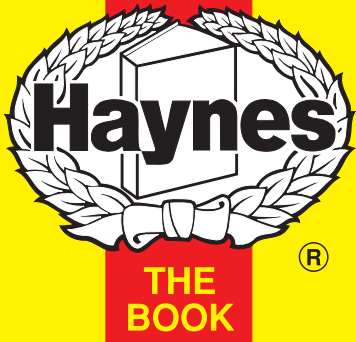
Electrical

Running gear

Torque settings

Capacities

Notes & Illustrations



Automotive Technical
DATA BOOK

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HELP

Engine and cooling system		Transporter/Caravelle 2.5i	1994 to 1997
Type		ACU SOHC 10V 81kW	
Capacity (cm³) / number of cylinders		2461 / 5	
Compression ratio / pressure	bar	10.0 / ≥7.5	
Oil pressure	bar	[2.0]	
Oil temperature	°C	80	
Valve clearance - inlet	mm	0: Hyd.	
Valve clearance - exhaust	mm	0: Hyd.	
Firing order		1-2-4-5-3	
No 1 cylinder position		TBE	
Thermostat opening temperature	°C	87 to 102	
Radiator cap pressure	bar	1.3 to 1.5	
Fuel system		Transporter/Caravelle 2.5i	1994 to 1997
Idle speed - manual [auto]	rpm	775 to 825 N/A	
Fast idle speed - manual [auto]	rpm	2500 to 2800	
CO @ idle speed [3000 rpm] - see page VI	%	≤0.5 [≤0.3] Ex N/A	
HC @ idle speed [3000 rpm] - see page VI	ppm	≤200	
CO2 @ idle speed [3000 rpm] - see page VI	%	—	
O2 @ idle speed [3000 rpm] - see page VI	%	—	
Carburettor / fuel injection		Volkswagen	
Type / ref		Digifant	
Main jet / needle		—	
Injection pressure	bar	2.5	
Pump pressure	bar	3.0	
Octane rating	RON	91[U]	
Ignition system		Transporter/Caravelle 2.5i	1994 to 1997
Type		Digifant	
Ignition coil		—	
Primary resistance	ohms	0.5 to 0.7	
Ballast resistor	ohms	—	
Voltage - Tmnl 15(+) to earth	V	—	
Distributor		—	
Points gap (air gap)	mm	—	
Dwell angle	° (%)	—	
Condenser capacity	µF	—	
Rotation		—	
Ignition timing - basic [static	° Crankshaft @ rpm	6±1 BTDC @ 2000 to 2500¹ N/A	
V = Vacuum NV = No Vacuum		—	
Total ignition advance	° Crankshaft @ rpm	—	
	° 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		W8DTC / N9BMC	
Electrode gap	mm	0.70 to 0.90 / ≤0.60	
Electrical system		Transporter/Caravelle 2.5i	1994 to 1997
Battery	V / CC / RC	12 / 220 /44, 60Ah	
Alternator voltage / full load current / engine rpm		_ / 70, 90, 120 / 3000	
Starter motor current / voltage - cranking	A / V	—	
- locked	A / V	—	
Running gear		Transporter/Caravelle 2.5i	1994 to 1997
Brakes -			
Front (min. friction material thickness)	mm	2.0	
Rear (min. friction material thickness)	mm	1.0	
Tyres			
Saloon	Size	—	
Estate / Van	Size	195/70x15:205/65x15:215/65x15	
Pressure - front / rear - Saloon	bar	—	
- Estate / Van	bar	2.6 / 3.4. 215/65: 2.4 / 3.0	
Front suspension / wheel alignment			
Toe-in (+) / Toe-out (–)	mm [°]	Group 1 & 2: [+20'±20']²	
Camber		Group 1 & 2: +15'±20'³	
Castor		+1°40'±30'. Group 4: 1°50'±30'	
King pin inclination		—	
Rear suspension / wheel alignment			
Toe-in (+) / Toe-out (–)	mm [°]	Group 1 & 3: [+20'±20']⁴	
Camber		Group 1 & 3: -30'±30'⁵	
Torque wrench settings		Transporter/Caravelle 2.5i	1994 to 1997
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	65⁶	
Clutch cover	Nm	20	
Flywheel [driveplate]	Nm	60 + 90° N	
Front hubs	Nm	150 + 90° N	
Rear hubs	Nm	200	
Wheel nuts / bolts	Nm	160	
Spark plugs	Nm	30	
Capacities		Transporter/Caravelle 2.5i	1994 to 1997
Engine oil & filter	litres	5.5	
Gearbox - 4-speed [5-speed]	litres	3.0 02B: 2.5	
Automatic transmission - refill	litres	3.5	
Final drive	litres	WT. AT: 1.15. 4x4: 1.0	
Cooling system	litres	9.0	
Fuel tank	litres	80	

Notes and Illustrations

¹Coolant temperature sender plug blue 2 pin disconnected

²Group 3: [+10'±20']. Group 4: [0±20']

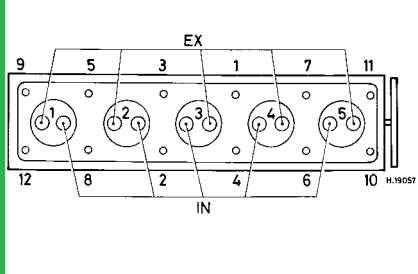
³Group 3: 0±20'. Group 4: -10'±20'

⁴Group 2: +6'±20'. Group 4: +24'±20'

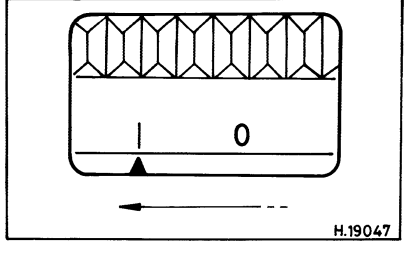
⁵Group 2: 0±30'. Group 4: -40'±30'

⁶Replace with fully threaded shank bolts: 65 + 90°

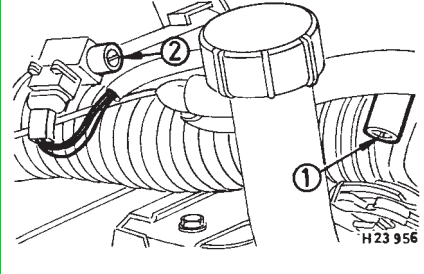
1: Idle speed 2: CO / Mixture



2461 cm³



2461 cm³



Digifant, ACU