

VOLKSWAGEN

Passat VR6

1991 to 1993

Engine & Cooling

Fuel

Ignition

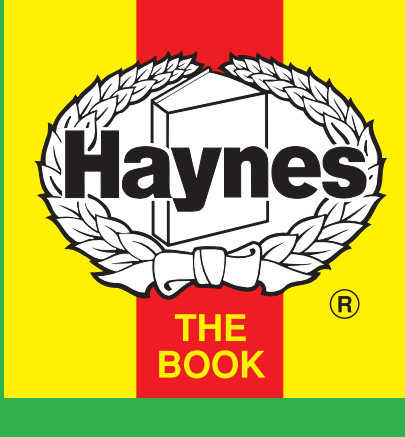
Electrical

Running gear

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Automotive Technical
DATA BOOK

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Engine and cooling system

Passat VR6

1991 to 1993

Type		AAA. 128kW
Capacity (cm ³) / number of cylinders		2792 / 6
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		1-5-3-6-2-4
No 1 cylinder position		PER
Thermostat opening temperature	°C	85
Radiator cap pressure	bar	1.2 to 1.5

Fuel system

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Idle speed - manual [auto]	rpm	660 to 740 N/A
Fast idle speed - manual [auto]	rpm	—
CO @ idle speed [3000 rpm] - see page VI	%	—
HC @ idle speed [3000 rpm] - see page VI	ppm	—
CO2 @ idle speed [3000 rpm] - see page VI	%	—
O2 @ idle speed [3000 rpm] - see page VI	%	—
Carburettor / fuel injection		Bosch
Type / ref		Motronic M2.7 / 2.9
Main jet / needle		—
Injection pressure	bar	—
Pump pressure	bar	—
Octane rating	RON	95[U]

Ignition system

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Type		Motronic ¹
Ignition coil		N152 ¹
Primary resistance	ohms	0.5 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	4 to 8 BTDC @ 650 to 750 N/A ¹
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		Champion
Type		C9MCC
Electrode gap	mm	0.70 to 0.80

Electrical system

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Battery	V / CC / RC	12 / 265 / 80, 280 / 60Ah
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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Brakes -		
Front (min. friction material thickness)	mm	7.0 with backing
Rear (min. friction material thickness)	mm	7.0 with backing

Tyres		
Saloon	Size	205/50x15
Estate / Van	Size	205/50x15
Pressure - front / rear - Saloon	bar	2.3 / 2.3
- Estate / Van	bar	2.3 / 2.3

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	[0±10']
Camber		-1°10'±20'
Castor		+3°20'±30' N/A
King pin inclination		—

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	[+20'±10']
Camber		-1°30'±10'

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	30 + 180°
Clutch cover	Nm	20
Flywheel [driveplate]	Nm	60 + 90° N
Front hubs	Nm	WSM
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	110
Spark plugs	Nm	25

Capacities

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Engine oil & filter	litres	6.0
Gearbox - 4-speed [5-speed]	litres	2.0
Automatic transmission - refill	litres	3.0
Final drive	litres	AT: 0.75
Cooling system	litres	10.0
Fuel tank	litres	70

Notes and Illustrations

¹93 ►: M2.9-Motronic: DIS with 6 output coil

²M2.9-Motronic: 6 to 7.5 BTDC @ 650 to 750 N/A

