

VOLKSWAGEN

Passat 2.0i & 4x4 CAT

1990 to 1994

Engine & Cooling

Fuel

Ignition

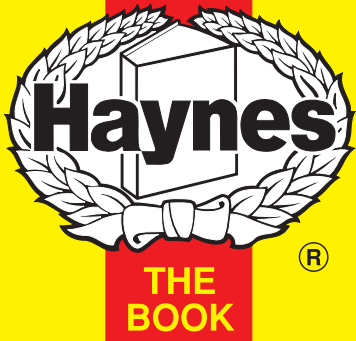
Electrical

Running gear

Torque settings

Capacities

Notes & Illustrations



Automotive Technical
DATA BOOK

Click on one of the buttons above to view data for this car. To return to this screen and make another choice, click anywhere on the data screen.

MENU

HELP

Engine and cooling system

Passat 2.0i & 4x4 CAT

1990 to 1994

| | | |
|---------------------------------------------------|-----|-----------------------------|
| Type | | 2E SOHC 85kW. 4x4 RHD: 82kW |
| Capacity (cm ³) / number of cylinders | | 1984 / 4 |
| 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 | | 1-3-4-2 |
| No 1 cylinder position | | TBE |
| Thermostat opening temperature | °C | 85 to 105 |
| Radiator cap pressure | bar | 1.2 to 1.5 |

Fuel system

Passat 2.0i & 4x4 CAT

1990 to 1994

| | | |
|-------------------------------------------|-----|------------|
| Idle speed - manual [auto] | rpm | 800±50 |
| Fast idle speed - manual [auto] | rpm | – |
| CO @ idle speed [3000 rpm] - see page VI | % | 0.7±0.4 |
| 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 | | Volkswagen |
| Type / ref | | Digifant |
| Main jet / needle | | – |
| Injection pressure | bar | 2.5 |
| Pump pressure | bar | 3.0 |
| Octane rating | RON | 95[U] |

Ignition system

Passat 2.0i & 4x4 CAT

1990 to 1994

| | | |
|---------------------------------|--------------------|--------------------------------------|
| Type | | Digifant |
| Ignition coil | | Transformer N152 |
| 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 | 6±1 BTDC @ 2000 to 2500 ¹ |
| V = Vacuum NV = No Vacuum | | V |
| Total ignition advance | ° Crankshaft @ rpm | 30±3 BTDC @ 2300 ² |
| | ° 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 | | N7BMC |
| Electrode gap | mm | 0.70 to 0.90 |

Electrical system

Passat 2.0i & 4x4 CAT

1990 to 1994

| | | |
|-----------------------------------------------------|-------------|---------------------------|
| 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

Passat 2.0i & 4x4 CAT

1990 to 1994

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

| | | |
|----------------------------------|------|-------------------------------|
| Tyres | | |
| Saloon | Size | 185/65x14:195/60x14:205/50x15 |
| Estate / Van | Size | 195/60x14:195/55x15:205/50x15 |
| 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°20'±20' |
| Castor | | +1°40'±30' N/A |
| King pin inclination | | – |

Rear suspension / wheel alignment

| | | |
|--------------------------|--------|-------------------------------------------|
| Toe-in (+) / Toe-out (–) | mm [°] | [25'±15'] ³ . 4x4: [+15'±20'] |
| Camber | | -1°40'±20' ⁴ . 4x4: -1°15'±30' |

Torque wrench settings

Passat 2.0i & 4x4 CAT

1990 to 1994

| | | |
|-------------------------|----|-----------------|
| Cylinder head - stage 1 | Nm | 40 N |
| - stage 2 | Nm | 60 |
| Cylinder head - stage 3 | Nm | + 90° |
| - stage 4 | Nm | + 90° |
| Big-end bearings | Nm | 30 + 90° |
| Main bearings | Nm | 65 ⁵ |
| Clutch cover | Nm | 20 |
| Flywheel [driveplate] | Nm | 60 + 90° N |
| Front hubs | Nm | 265 + WSM |
| Rear hubs | Nm | WSM |
| Wheel nuts / bolts | Nm | 110 |
| Spark plugs | Nm | 25 |

Capacities

Passat 2.0i & 4x4 CAT

1990 to 1994

| | | |
|---------------------------------|--------|----------------|
| Engine oil & filter | litres | 4.0 |
| Gearbox - 4-speed [5-speed] | litres | 2.0. 4x4: 2.4 |
| Automatic transmission - refill | litres | 3.0 |
| Final drive | litres | AT & 4x4: 0.75 |
| Cooling system | litres | 6.5 |
| Fuel tank | litres | 70 |

Notes and Illustrations

¹80°C temperature sender plug disconnected

²80°C temperature sender plug connected

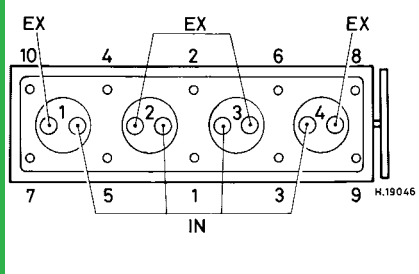
³Chassis no. 31LE222 111 or 31LB108 393 ►: [+20'±10']

⁴Chassis no. 31LE222 111 or 31LB108 393 ►: -1°30'±10'


⁵Replace with fully threaded shank bolts: 65+90°

1: Idle speed

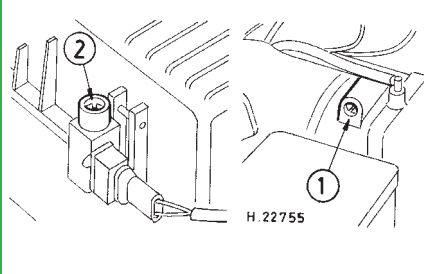
2: CO / Mixture



1984 cm³, 8V



1984 cm³, 8V



Digifant, 2E