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HELP

Engine and cooling system 309, 1.9 GTi 1987 to 1993

| | | |
|---|----------------------|-----------|
| Type | XU9JA/K (D6B) (94kW) | |
| Capacity (cm ³) / number of cylinders | 1905 / 4 | |
| Compression ratio / pressure | bar | 9.6 / _ |
| Oil pressure | bar | 2.1 [4.1] |
| Oil temperature | °C | 80 |
| Valve clearance - inlet | mm | 0.20 |
| Valve clearance - exhaust | mm | 0.40 |
| Firing order | 1-3-4-2 | |
| No 1 cylinder position | FE | |
| Thermostat opening temperature | °C | 82 |
| Radiator cap pressure | bar | 1.0 |

Fuel system 309, 1.9 GTi 1987 to 1993

| | | |
|---|--------------|----------------|
| Idle speed - manual [auto] | rpm | 900±50 |
| Fast idle speed - manual [auto] | rpm | _ |
| CO @ idle speed [3000 rpm] - see page VI | % | 1.0±0.5 [≤0.5] |
| HC @ idle speed [3000 rpm] - see page VI | ppm | ≤250 |
| CO ₂ @ idle speed [3000 rpm] - see page VI | % | ≥10.0 |
| O ₂ @ idle speed [3000 rpm] - see page VI | % | _ |
| Carburettor / fuel injection | Bosch | |
| Type / ref | LE2-Jetronic | |
| Main jet / needle | _ | |
| Injection pressure | bar | 2.5 |
| Pump pressure | bar | 2.9 to 3.1 |
| Octane rating | RON | 97[E 98 RON] |

Ignition system 309, 1.9 GTi 1987 to 1993

| | | |
|---------------------------------|--------------------|-----------------|
| Type | Electronic | |
| Ignition coil | Bosch/Ducellier | |
| Primary resistance | ohms | 0.82 |
| Ballast resistor | ohms | _ |
| Voltage - Tmnl 15(+) to earth | V | _ |
| Distributor | Bosch/Ducellier | |
| Points gap (air gap) | mm | _ |
| Dwell angle | ° (%) | _ |
| Condenser capacity | µF | _ |
| Rotation | Anticlockwise | |
| Ignition timing - basic [static | ° Crankshaft @ rpm | 5 BTDC @ 700 |
| V = Vacuum NV = No Vacuum | NV | |
| Total ignition advance | ° Crankshaft @ rpm | C043-D019 |
| | ° Crankshaft @ rpm | _ |
| | ° Crankshaft @ rpm | _ |
| Centrifugal check. | ° Crankshaft @ rpm | 5 to 8 @ 1200 |
| | ° Crankshaft @ rpm | 18 to 24 @ 2000 |
| | ° Crankshaft @ rpm | 26 to 30 @ 5000 |
| Vacuum range check | mbar | 212 to 704 |
| Maximum vacuum advance | ° Crankshaft | 18 to 22 |
| Spark plugs | Eyquem/Champion | |
| Type | FC58LS / C7YCX | |
| Electrode gap | mm | 0.80 |

Electrical system 309, 1.9 GTi 1987 to 1993

| | | |
|---|-------------------------|---------------|
| Battery | V / CC / RC | 12 / 210 / 65 |
| Alternator voltage / full load current / engine rpm | 13.8 to 14.8 / _ / 3000 | |
| Starter motor current / voltage - cranking | A / V | _ |
| - locked | A / V | _ |

Running gear 309, 1.9 GTi 1987 to 1993

| | | |
|--|----|-----|
| Brakes - | | |
| Front (min. friction material thickness) | mm | 1.0 |
| Rear (min. friction material thickness) | mm | _ |

| | | |
|----------------------------------|------|-----------|
| Tyres | | |
| Saloon | Size | 185/55x15 |
| Estate / Van | Size | _ |
| Pressure - front / rear - Saloon | bar | 2.0 / 2.0 |
| - Estate / Van | bar | _ |

| | | |
|---|-------------|-------------|
| Front suspension / wheel alignment | | |
| Toe-in (+) / Toe-out (-) | mm [°] | +1.0±0.5 PW |
| Camber | -40'±30' | |
| Castor | +2°10'±30' | |
| King pin inclination | +10°40'±30' | |

| | | |
|--|----------------------------|--------------------------|
| Rear suspension / wheel alignment | | |
| Toe-in (+) / Toe-out (-) | mm [°] | +1.9±0.8 PW ¹ |
| Camber | -50'±30'. 90 ▶: -1°15'±30' | |

Torque wrench settings 309, 1.9 GTi 1987 to 1993

| | | |
|-------------------------|----|-----------------|
| Cylinder head - stage 1 | Nm | 60 |
| - stage 2 | Nm | Slacken |
| Cylinder head - stage 3 | Nm | 20 |
| - stage 4 | Nm | + 300° |
| Big-end bearings | Nm | 40 ² |
| Main bearings | Nm | 49 |
| Clutch cover | Nm | 25 |
| Flywheel [driveplate] | Nm | 49 LkC |
| Front hubs | Nm | 265 |
| Rear hubs | Nm | 215 |
| Wheel nuts / bolts | Nm | 85 |
| Spark plugs | Nm | 25 to 30 |

Capacities 309, 1.9 GTi 1987 to 1993

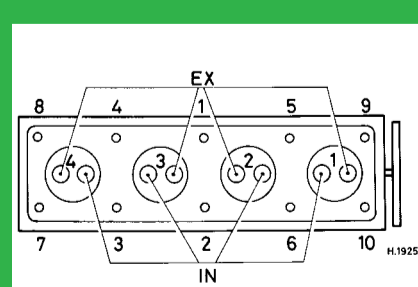
| | | |
|---------------------------------|--------|-----------------|
| Engine oil & filter | litres | 5.0. 93 MY: 4.5 |
| Gearbox - 4-speed [5-speed] | litres | 2.0 |
| Automatic transmission - refill | litres | _ |
| Final drive | litres | WT |
| Cooling system | litres | 8.0 |
| Fuel tank | litres | 55 |

Notes and Illustrations

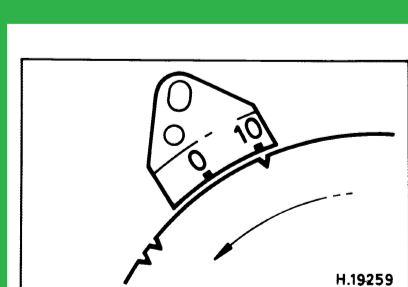
¹1990 ▶: +2.5±1.3

²Slacken, then 20 + 70°

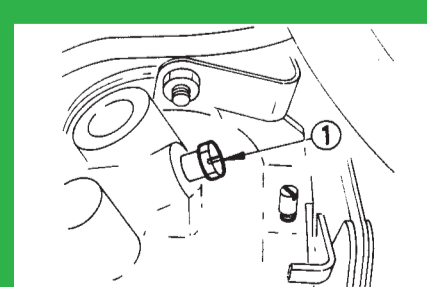
1: Idle speed 2: CO / Mixture



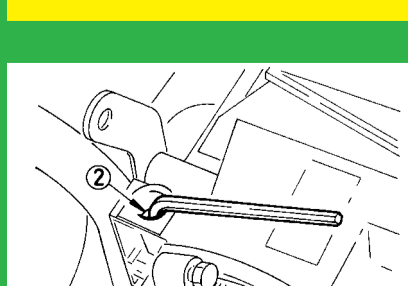
1905 cm³, 8V



1905 cm³, 8V



LE2-Jetronic



LE2-Jetronic