

Engine & Cooling

Fuel

Ignition

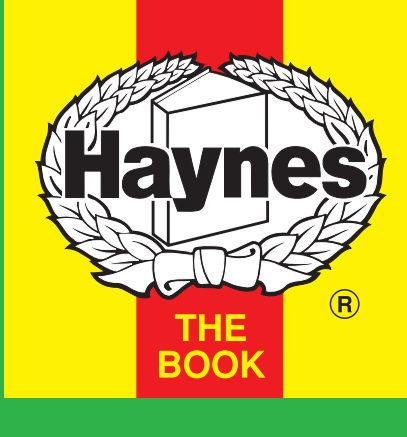
Electrical

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Automotive Technical  
DATA BOOK

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HELP

Engine and cooling system90, Coupé & 4x4 2.3 20V CAT1988 to 1991

|                                                   |     |                     |
|---------------------------------------------------|-----|---------------------|
| Type                                              |     | 7A (125kW) DOHC 20V |
| Capacity (cm <sup>3</sup> ) / number of cylinders |     | 2309 / 5            |
| Compression ratio / pressure                      | bar | 10.0 / ≥8.0         |
| Oil pressure                                      | bar | [2.0]               |
| Oil temperature                                   | °C  | 80                  |
| Valve clearance - inlet                           | mm  | 0: Hyd.             |
| Valve clearance - exhaust                         | mm  | 0: Hyd.             |
| Firing order                                      |     | 1-2-4-5-3           |
| No 1 cylinder position                            |     | TBE                 |
| Thermostat opening temperature                    | °C  | 87                  |
| Radiator cap pressure                             | bar | 1.2 to 1.5          |

Fuel system90, Coupé & 4x4 2.3 20V CAT1988 to 1991

|                                                       |     |                   |
|-------------------------------------------------------|-----|-------------------|
| Idle speed - manual [auto]                            | rpm | 800±50            |
| Fast idle speed - manual [auto]                       | rpm | —                 |
| CO @ idle speed [3000 rpm] - see page VI              | %   | ≤0.5              |
| HC @ idle speed [3000 rpm] - see page VI              | ppm | ≤1200             |
| CO <sub>2</sub> @ idle speed [3000 rpm] - see page VI | %   | —                 |
| O <sub>2</sub> @ idle speed [3000 rpm] - see page VI  | %   | —                 |
| Carburettor / fuel injection                          |     | Bosch             |
| Type / ref                                            |     | MPI (Multi-point) |
| Main jet / needle                                     |     | —                 |
| Injection pressure                                    | bar | 3.0               |
| Pump pressure                                         | bar | 3.8 to 4.2        |
| Octane rating                                         | RON | 95[U]             |

Ignition system90, Coupé & 4x4 2.3 20V CAT1988 to 1991

|                                 |                    |                      |
|---------------------------------|--------------------|----------------------|
| Type                            |                    | Computerized         |
| Ignition coil                   |                    | Bosch                |
| Primary resistance              | ohms               | 0 to 1.0             |
| Ballast resistor                | ohms               | —                    |
| Voltage - Tmnl 15(+) to earth   | V                  | —                    |
| Distributor                     |                    | Bosch                |
| Points gap (air gap)            | mm                 | —                    |
| Dwell angle                     | ° (%)              | —                    |
| Condenser capacity              | µF                 | —                    |
| Rotation                        |                    | Clockwise            |
| Ignition timing - basic [static | ° Crankshaft @ rpm | Computer control 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                     |                    | NGK                  |
| Type                            |                    | BKUR7ET              |
| Electrode gap                   | mm                 | 0.70 to 0.90         |

Electrical system90, Coupé & 4x4 2.3 20V CAT1988 to 1991

|                                                     |             |                         |
|-----------------------------------------------------|-------------|-------------------------|
| Battery                                             | V / CC / RC | 12 / _                  |
| Alternator voltage / full load current / engine rpm |             | 12.5 to 14.5 / _ / 2000 |
| Starter motor current / voltage - cranking          | A / V       | —                       |
| - locked                                            | A / V       | —                       |

Running gear90, Coupé & 4x4 2.3 20V CAT1988 to 1991

|                                          |    |     |
|------------------------------------------|----|-----|
| Brakes -                                 |    |     |
| Front (min. friction material thickness) | mm | 2.0 |
| Rear (min. friction material thickness)  | mm | 2.0 |

|                                  |      |                               |
|----------------------------------|------|-------------------------------|
| Tyres                            |      |                               |
| Saloon                           | Size | 195/60x14:205/50x15:205/60x15 |
| Estate / Van                     | Size | —                             |
| Pressure - front / rear - Saloon | bar  | 2.1 / 2.1 <sup>1</sup>        |
| - Estate / Van                   | bar  | —                             |

|                                    |        |                         |
|------------------------------------|--------|-------------------------|
| Front suspension / wheel alignment |        |                         |
| Toe-in (+) / Toe-out (–)           | mm [°] | [+10'±10']              |
| Camber                             |        | -45'±30' <sup>2</sup>   |
| Castor                             |        | +1°15'±30' <sup>3</sup> |
| King pin inclination               |        | —                       |

|                                   |        |                            |
|-----------------------------------|--------|----------------------------|
| Rear suspension / wheel alignment |        |                            |
| Toe-in (+) / Toe-out (–)          | mm [°] | [+20'±20'].4x4: [+20'±10'] |
| Camber                            |        | -1°±20'. 4x4: -45'±30'     |

Torque wrench settings90, Coupé & 4x4 2.3 20V CAT1988 to 1991

|                         |    |                      |
|-------------------------|----|----------------------|
| 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                   |
| Clutch cover            | Nm | 25                   |
| Flywheel [driveplate]   | Nm | 30 + 90° N           |
| Front hubs              | Nm | 265 LkC <sup>4</sup> |
| Rear hubs               | Nm | WSM <sup>5</sup>     |
| Wheel nuts / bolts      | Nm | 110                  |
| Spark plugs             | Nm | 20                   |

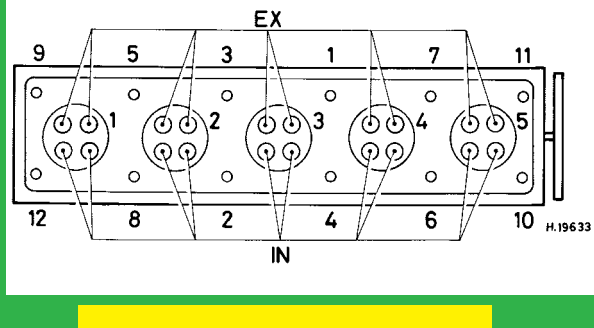
Capacities90, Coupé & 4x4 2.3 20V CAT1988 to 1991

|                                 |        |                |
|---------------------------------|--------|----------------|
| Engine oil & filter             | litres | 4.5            |
| Gearbox - 4-speed [5-speed]     | litres | 2.4. 4x4: 2.9  |
| Automatic transmission - refill | litres | 3.0            |
| Final drive                     | litres | AT & 4x4: 0.75 |
| Cooling system                  | litres | 8.0            |
| Fuel tank                       | litres | 68. Coupé: 70  |

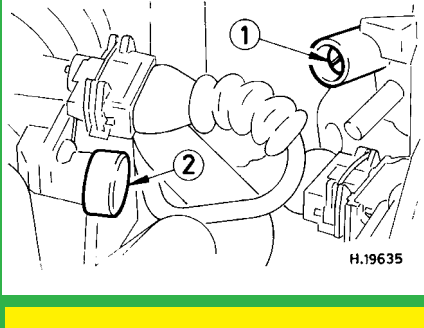
Notes and Illustrations

- <sup>1</sup>90: 2.3 / 2.3
- <sup>2</sup>Coupé & 4x4: -50'±30'
- <sup>3</sup>Coupé & 4x4: +1°25'±30'
- <sup>4</sup>PAS+4x4 with detachable wheel housing: M14: 120+ 90° M16: 200 + 90°
- <sup>5</sup>4x4: 320

1: Idle speed      2: CO / Mixture



2309 cm<sup>3</sup>, 20V



MPI, 7A