

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

750i (E38)

1994 to 1997

|                                      |     |                            |
|--------------------------------------|-----|----------------------------|
| Type                                 |     | M70,3/B54 240kW SOHC 24V   |
| Capacity (cm³) / number of cylinders |     | 5379 / 12                  |
| Compression ratio / pressure         | bar | 10.0 / ≥10.0               |
| Oil pressure                         | bar | 0.5 [4.0]                  |
| Oil temperature                      | °C  | 80                         |
| Valve clearance - inlet              | mm  | 0: Hyd.                    |
| Valve clearance - exhaust            | mm  | 0: Hyd.                    |
| Firing order                         |     | 1-7-5-11-3-9-6-12-2-8-4-10 |
| No 1 cylinder position               |     | PER                        |
| Thermostat opening temperature       | °C  | 95                         |
| Radiator cap pressure                | bar | 2.0±0.1                    |

Fuel system

750i (E38)

1994 to 1997

|                                           |     |                   |
|-------------------------------------------|-----|-------------------|
| Idle speed - manual [auto]                | rpm | 600±50            |
| Fast idle speed - manual [auto]           | rpm | —                 |
| CO @ idle speed [3000 rpm] - see page VI  | %   | ≤0.3 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              |     | _ Bosch           |
| Type / ref                                |     | DME M5.2-Motronic |
| Main jet / needle                         |     | —                 |
| Injection pressure                        | bar | —                 |
| Pump pressure                             | bar | 3.0±0.06          |
| Octane rating                             | RON | 95[U]             |

Ignition system

750i (E38)

1994 to 1997

|                                 |                    |                      |
|---------------------------------|--------------------|----------------------|
| Type                            |                    | DME Motronic         |
| Ignition coil                   |                    | —                    |
| Primary resistance              | ohms               | a: 0.50. b: 0.37     |
| 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 | Computer control N/A |
| V = Vacuum    NV = No Vacuum    |                    | —                    |
| Total ignition advance          | ° Crankshaft @ rpm | Computer control     |
|                                 | ° 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                |
| Type                            |                    | F8LCR                |
| Electrode gap                   | mm                 | 0.70+0.10            |

Electrical system

750i (E38)

1994 to 1997

|                                                     |             |                           |
|-----------------------------------------------------|-------------|---------------------------|
| Battery                                             | V / CC / RC | 12 / 90Ah                 |
| Alternator voltage / full load current / engine rpm |             | 13.5 to 14.2 / 140 / 3000 |
| Starter motor current / voltage - cranking          | A / V       | —                         |
| - locked                                            | A / V       | —                         |

Running gear

750i (E38)

1994 to 1997

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

|                                  |      |                              |
|----------------------------------|------|------------------------------|
| Tyres                            |      |                              |
| Saloon                           | Size | 230/55x390: 235/60x16        |
| Estate / Van                     | Size | —                            |
| Pressure - front / rear - Saloon | bar  | 2.6 / 3.0. 235/60: 2.2 / 2.6 |
| - Estate / Van                   | bar  | —                            |

|                                    |        |           |
|------------------------------------|--------|-----------|
| Front suspension / wheel alignment |        |           |
| Toe-in (+) / Toe-out (–)           | mm [°] | [+14'±5'] |
| Camber                             |        | -13'±30'  |
| Castor                             |        | +6°6'±30' |
| King pin inclination               |        | —         |

|                                   |        |            |
|-----------------------------------|--------|------------|
| Rear suspension / wheel alignment |        |            |
| Toe-in (+) / Toe-out (–)          | mm [°] | [+18'±10'] |
| Camber                            |        | -1°30'±20' |

Torque wrench settings

750i (E38)

1994 to 1997

|                         |    |            |
|-------------------------|----|------------|
| Cylinder head - stage 1 | Nm | 30±2 N     |
| - stage 2               | Nm | + 60°      |
| Cylinder head - stage 3 | Nm | + 60°      |
| - stage 4               | Nm | —          |
| Big-end bearings        | Nm | 20 + 70° N |
| Main bearings           | Nm | 20 + 70° N |
| Clutch cover            | Nm | —          |
| Flywheel [driveplate]   | Nm | 105±5 N    |
| Front hubs              | Nm | 290        |
| Rear hubs               | Nm | 247.6±5%   |
| Wheel nuts / bolts      | Nm | 100±10     |
| Spark plugs             | Nm | 30 to 33   |

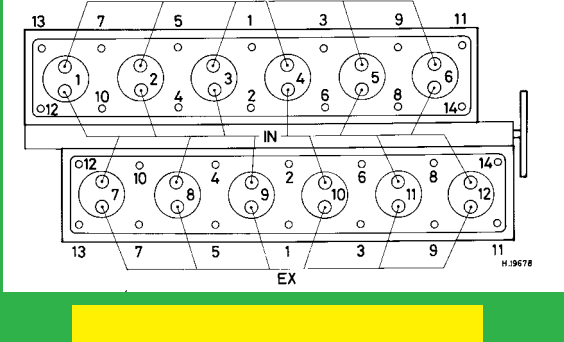
Capacities

750i (E38)

1994 to 1997

|                                 |        |                     |
|---------------------------------|--------|---------------------|
| Engine oil & filter             | litres | 8.0                 |
| Gearbox - 4-speed [5-speed]     | litres | —                   |
| Automatic transmission - refill | litres | 3.0 Filled for life |
| Final drive                     | litres | 1.2                 |
| Cooling system                  | litres | 13.0                |
| Fuel tank                       | litres | 95                  |

Notes and Illustrations



5379 cm³, M70