Automotive Technical DATA BOOK

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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	ºC	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	ºC	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	º (%)	_
Condenser capacity	µF	_
Rotation		_
Ignition timing - basic [static	º Crankshaft @ rpm	Computer control N/A
V = Vacuum NV = No Vacuum		_
Total ignition advance	º Crankshaft @ rpm	Computer control
	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
Centrifugal check.	º Crankshaft @ rpm	Computer control
	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
Vacuum range check	mbar	Computer control
Maximum vacuum advance	º 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 [º]	[+14'±5']
Camber		-13'±30'
Castor		+6°6'±30'
King pin inclination		_
Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [º]	[+18'±10']
Camber		-1°30'±20'

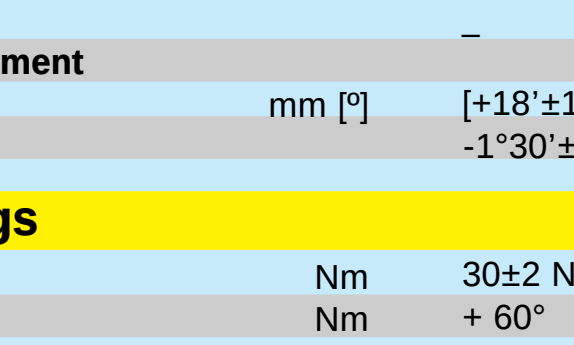
Torque wrench settings — 750i (E38) — 1994 to 1997

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