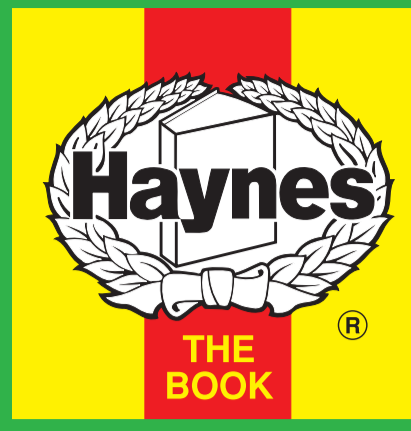


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Automotive Technical DATA BOOK

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Engine and cooling system 735i E38 1996 to 1997

Type	M62 B35 V8 173kW	
Capacity (cm ³) / number of cylinders	3498 / 8	
Compression ratio / pressure	bar	10.0 / ≥12.0
Oil pressure	bar	≥0.5 / 4.5
Oil temperature	°C	80
Valve clearance - inlet	mm	0: Hyd.
Valve clearance - exhaust	mm	0: Hyd.
Firing order	1-5-4-8-6-3-7-2	
No 1 cylinder position	-	
Thermostat opening temperature	°C	85
Radiator cap pressure	bar	-

Fuel system 735i E38 1996 to 1997

Idle speed - manual [auto]	rpm	750±50
Fast idle speed - manual [auto]	rpm	-
CO @ idle speed [3000 rpm] - see page VI	%	0.5±0.3
HC @ idle speed [3000 rpm] - see page VI	ppm	≤200
CO ₂ @ idle speed [3000 rpm] - see page VI	%	-
O ₂ @ 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	3.5
Octane rating	RON	95[U]

Ignition system 735i E38 1996 to 1997

Type	DME Motronic	
Ignition coil	-	
Primary resistance	ohms	-
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	-
V = Vacuum NV = No Vacuum	-	
Total ignition advance	° Crankshaft @ rpm	-
	° Crankshaft @ rpm	-
	° Crankshaft @ rpm	-
Centrifugal check.	° Crankshaft @ rpm	-
	° Crankshaft @ rpm	-
	° Crankshaft @ rpm	-
Vacuum range check	mbar	-
Maximum vacuum advance	° Crankshaft	-
Spark plugs	Bosch	
Type	F7LDCR	
Electrode gap	mm	0.7

Electrical system 735i E38 1996 to 1997

Battery	V / CC / RC	12 / 90Ah
Alternator voltage / full load current / engine rpm	_ / 140 / _	
Starter motor current / voltage - cranking	A / V	-
- locked	A / V	-

Running gear 735i E38 1996 to 1997

Brakes -		
Front (min. friction material thickness)	mm	3.0
Rear (min. friction material thickness)	mm	3.0

Tyres		
Saloon	Size	235/60x16
Estate / Van	Size	-
Pressure - front / rear - Saloon	bar	Refer to vehicle
- Estate / Van	bar	-

Front suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	[0°14'±10']
Camber		-0°13'±30'
Castor		6°06'±30'
King pin inclination	-	

Rear suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	[0°18'±10']
Camber		-1°30'±20'

Torque wrench settings 735i E38 1996 to 1997

Cylinder head - stage 1	Nm	30
- stage 2	Nm	+80°
Cylinder head - stage 3	Nm	+80°
- stage 4	Nm	-
Big-end bearings	Nm	5, 20+80°
Main bearings	Nm	WSM
Clutch cover	Nm	24
Flywheel [driveplate]	Nm	105
Front hubs	Nm	-
Rear hubs	Nm	300
Wheel nuts / bolts	Nm	100±10
Spark plugs	Nm	-

Capacities 735i E38 1996 to 1997

Engine oil & filter	litres	7.5
Gearbox - 4-speed [5-speed]	litres	1.25
Automatic transmission - refill	litres	3.3
Final drive	litres	1.4
Cooling system	litres	12.0
Fuel tank	litres	85. iL: 95

Notes and Illustrations

