

Engine & Cooling

Fuel

Ignition

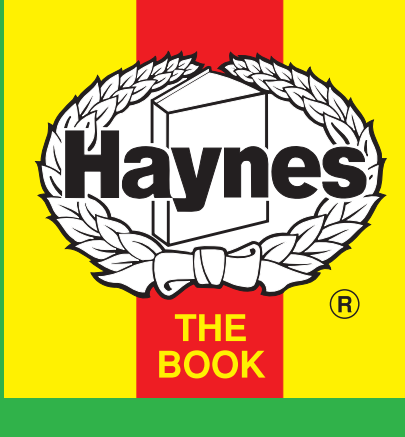
Electrical

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Automotive Technical
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Engine and cooling system

325i, iX, Touring/CAT (E30)

1988 to 1993

Type		M20/B25 25 6K1/6E2¹
Capacity (cm³) / number of cylinders		2494 / 6
Compression ratio / pressure	bar	9.4 (CAT: 8.8) / ≥10.0
Oil pressure	bar	0.5 [4.0]
Oil temperature	°C	80
Valve clearance - inlet	mm	0.25
Valve clearance - exhaust	mm	0.25
Firing order		1-5-3-6-2-4
No 1 cylinder position		TBE
Thermostat opening temperature	°C	80
Radiator cap pressure	bar	1.0±0.1

Fuel system

325i, iX, Touring/CAT (E30)

1988 to 1993

Idle speed - manual [auto]	rpm	760±40
Fast idle speed - manual [auto]	rpm	—
CO @ idle speed [3000 rpm] - see page VI	%	≤0.3
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		M1.1 or M1.3-Motronic
Main jet / needle		—
Injection pressure	bar	2.8 to 3.2
Pump pressure	bar	3.0±0.06
Octane rating	RON	98[E 95 RON]²

Ignition system

325i, iX, Touring/CAT (E30)

1988 to 1993

Type		DME Motronic
Ignition coil		Bosch 0 221 118 335
Primary resistance	ohms	0.82
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	—
Distributor		Bosch
Points gap (air gap)	mm	[0.30 to 0.70]
Dwell angle	° (%)	—
Condenser capacity	µF	—
Rotation		—
Ignition timing - basic [static	° Crankshaft @ rpm	Computer control
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/Champion
Type		W8LCR / RN7YC
Electrode gap	mm	0.70+0.10

Electrical system

325i, iX, Touring/CAT (E30)

1988 to 1993

Battery	V / CC / RC	12 / 50, 55 or 66Ah
Alternator voltage / full load current / engine rpm		13.5 to 14.2 / 80 or 90 / 1500
Starter motor current / voltage - cranking	A / V	160 / 9.0
- locked	A / V	—

Running gear

325i, iX, Touring/CAT (E30)

1988 to 1993

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

Tyres		
Saloon	Size	195/65x14:200/60x356:205/55x15
Estate / Van	Size	195/65x14
Pressure - front / rear - Saloon	bar	2.0 / 2.2³
- Estate / Van	bar	2.2 / 2.3

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	[+18'±5']. 4x4: [0±5']
Camber		-40'±30'. 4x4: -1°±30'
Castor		+8°46'±30'. 4x4: +1°33'±30'
King pin inclination		+14°15'±30'. 4x4: +12°40'±30'

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	[+22'±7']. Conv: [+23'±7']⁴
Camber		-2°±30'. Conv: -1°50'±30'

Torque wrench settings

325i, iX, Touring/CAT (E30)

1988 to 1993

Cylinder head - stage 1	Nm	TORX: 30 to 32 WSM
- stage 2	Nm	+ 90±3°
Cylinder head - stage 3	Nm	+ 90±3°
- stage 4	Nm	—
Big-end bearings	Nm	23 + 70° N
Main bearings	Nm	58 to 63
Clutch cover	Nm	24. 10.9 hex: 35
Flywheel [driveplate]	Nm	113 to 130 N
Front hubs	Nm	290. iX: 250
Rear hubs	Nm	195 to 210
Wheel nuts / bolts	Nm	110
Spark plugs	Nm	30 to 33

Capacities

325i, iX, Touring/CAT (E30)

1988 to 1993

Engine oil & filter	litres	4.25
Gearbox - 4-speed [5-speed]	litres	1.25⁵
Automatic transmission - refill	litres	3.0
Final drive	litres	1.7⁶
Cooling system	litres	10.5
Fuel tank	litres	63 or 70

Notes and Illustrations

¹126kW. CAT: 125kW

²CAT: 95 [U]

³Later: 2.2 / 2.3. 4x4: 2.2 / 2.2

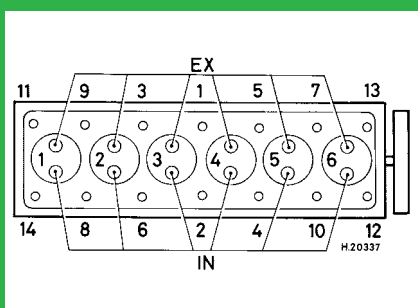
⁴4x4: [+25'±7']

⁵Transfer box: 0.5

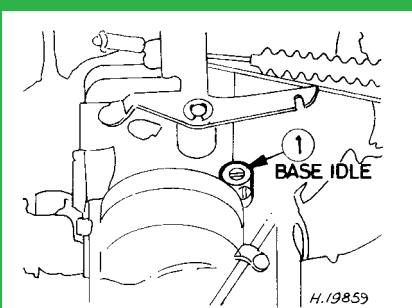
⁶4x4 front: 0.7

1: Idle speed

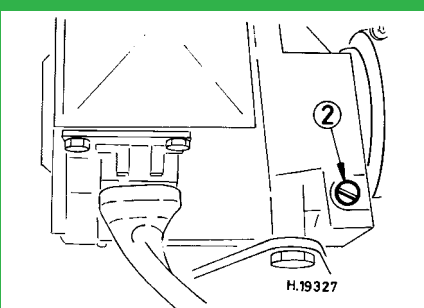
2: CO / Mixture



2494 cm³, 12V



M1.1/M1.3-Motronic



M1.1/M1.3-Motronic