

Engine & Cooling

Fuel

Ignition

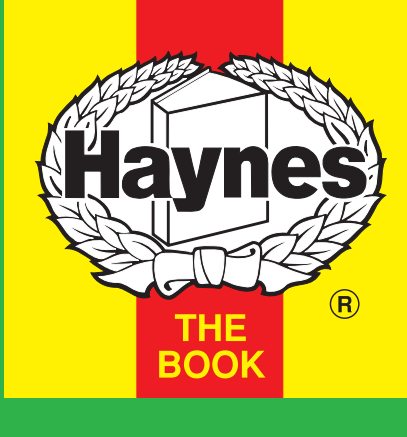
Electrical

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Engine and cooling system

525i (E28)

1981 to 1988

Type		M30 / B25
Capacity (cm³) / number of cylinders		2494 / 6
Compression ratio / pressure	bar	9.6 / 10 to 11
Oil pressure	bar	0.5 to 2.0
Oil temperature	°C	—
Valve clearance - inlet	mm	0.35 H
Valve clearance - exhaust	mm	0.35 H
Firing order		1-5-3-6-2-4
No 1 cylinder position		TCE
Thermostat opening temperature	°C	80
Radiator cap pressure	bar	1.0±0.1

Fuel system

525i (E28)

1981 to 1988

Idle speed - manual [auto]	rpm	850±50
Fast idle speed - manual [auto]	rpm	—
CO @ idle speed [3000 rpm] - see page VI	%	1.0±0.5
HC @ idle speed [3000 rpm] - see page VI	ppm	≤1200
CO2 @ idle speed [3000 rpm] - see page VI	%	—
O2 @ idle speed [3000 rpm] - see page VI	%	—
Carburettor / fuel injection		Bosch
Type / ref		L-Jetronic
Main jet / needle		—
Injection pressure	bar	3.0
Pump pressure	bar	2.5 to 3.0
Octane rating	RON	98[R]

Ignition system

525i (E28)

1981 to 1988

Type		Electronic
Ignition coil		Bosch 0 221 122 319
Primary resistance	ohms	0.82
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	≥10.8
Distributor		Bosch
Points gap (air gap)	mm	—
Dwell angle	° (%)	30 to 40.2 @ 2500 rpm
Condenser capacity	µF	—
Rotation		Clockwise
Ignition timing - basic [static	° Crankshaft @ rpm	22 BTDC @ 1800±50 ¹
V = Vacuum NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	8.5 to 15.5 @ 1000 ²
	° Crankshaft @ rpm	15.5 to 23.5 @ 1500 ²
	° Crankshaft @ rpm	24.5 to 32 @ 2500 ²
Vacuum range check	mbar	100 to 280 ³
Maximum vacuum advance	° Crankshaft	13 to 17 ³
Spark plugs		Bosch/Champion
Type		W8DC / N9YCX
Electrode gap	mm	0.70+0.10

Electrical system

525i (E28)

1981 to 1988

Battery	V / CC / RC	12 / 55Ah
Alternator voltage / full load current / engine rpm		13.5 to 14.2 / _ / 1500
Starter motor current / voltage - cranking	A / V	200 / 9.0
- locked	A / V	—

Running gear

525i (E28)

1981 to 1988

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

Tyres		
Saloon	Size	175x14: 195/70x14
Estate / Van	Size	—
Pressure - front / rear - Saloon	bar	2.2 / 2.2
- Estate / Van	bar	—

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	+2.0±0.6
Camber		-20'±30'
Castor		+8°±30' (10° lock)
King pin inclination		+11°57'±30' (10° lock)

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	+2.0±0.8
Camber		WSM

Torque wrench settings

525i (E28)

1981 to 1988

Cylinder head - stage 1	Nm	60±2, wait 20 min.
- stage 2	Nm	80±2
Cylinder head - stage 3	Nm	Warm engine for 25 min.
- stage 4	Nm	+ 35±5°
Big-end bearings	Nm	52 to 57
Main bearings	Nm	58 to 63
Clutch cover	Nm	22 to 24
Flywheel [driveplate]	Nm	105±7 locked threads
Front hubs	Nm	WSM
Rear hubs	Nm	234 to 260
Wheel nuts / bolts	Nm	100±10
Spark plugs	Nm	26±2

Capacities

525i (E28)

1981 to 1988

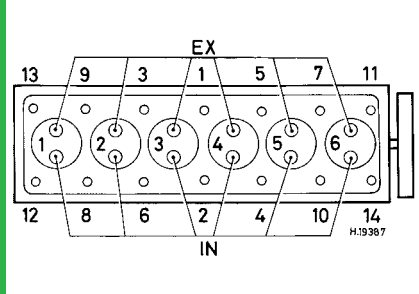
Engine oil & filter	litres	5.8
Gearbox - 4-speed [5-speed]	litres	1.1 [1.6] ⁴
Automatic transmission - refill	litres	2.0 [4 speed: 3.0]
Final drive	litres	1.7
Cooling system	litres	12.0
Fuel tank	litres	70

Notes and Illustrations

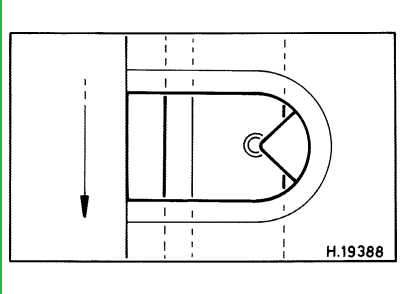
- ¹Distributor 237 302 033: 22 BTDC @ 2150±50
- ²Dist. 237 302 033: 8 to 14 @ 1000, 13 to 20 @ 1500, 21 to 28 @ 2500
- ³Dist. 237 302 033: 140 to 450 @ 16 to 20°
- ⁴260 type: 1.3

1: Idle speed

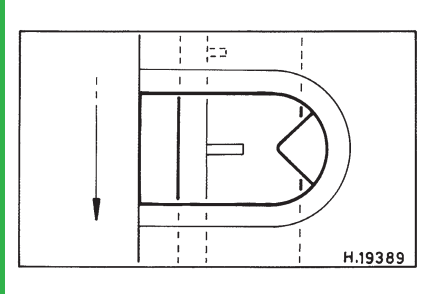
2: CO / Mixture



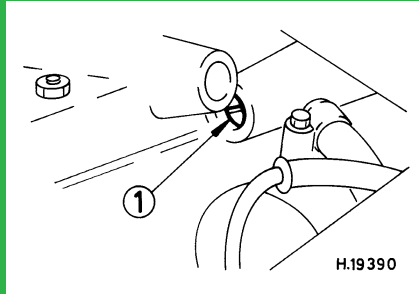
2494 cm³, M30



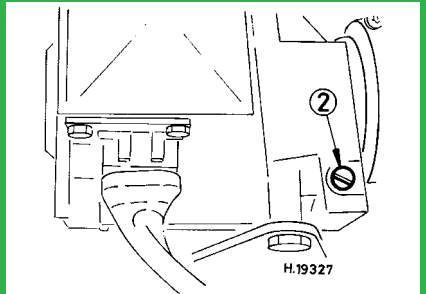
2494 cm³, M30



2494 cm³, M30, alternative



L-Jetronic



L-Jetronic