

Engine & Cooling

Fuel

Ignition

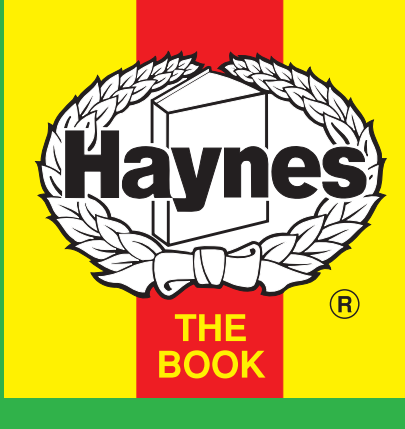
Electrical

Running gear

Torque settings

Capacities

Notes & Illustrations



Automotive Technical
DATA BOOK

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HELP

Engine and cooling system

518i (E28)

1985 to 1988

Type		M10 / B18
Capacity (cm³) / number of cylinders		1766 / 4
Compression ratio / pressure	bar	9.5 / 10 to 11
Oil pressure	bar	0.5 to 2.0
Oil temperature	°C	—
Valve clearance - inlet	mm	0.25 H
Valve clearance - exhaust	mm	0.25 H
Firing order		1-3-4-2
No 1 cylinder position		TCE
Thermostat opening temperature	°C	80
Radiator cap pressure	bar	1.0±0.1

Fuel system

518i (E28)

1985 to 1988

Idle speed - manual [auto]	rpm	800±50
Fast idle speed - manual [auto]	rpm	—
CO @ idle speed [3000 rpm] - see page VI	%	≤1.0
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	2.5. 9.83 ▶: 3.0
Pump pressure	bar	2.5 to 3.0
Octane rating	RON	98[R]

Ignition system

518i (E28)

1985 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	° (%)	—
Condenser capacity	µF	—
Rotation		—
Ignition timing - basic [static	° Crankshaft @ rpm	30 BTDC @ 3000±50
V = Vacuum NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	6 to 14 @ 1000
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	24 to 30 @ 5000
Vacuum range check	mbar	60 to 500
Maximum vacuum advance	° Crankshaft	18 to 22
Spark plugs		Bosch/Champion
Type		W8DC / N9YC
Electrode gap	mm	0.70+0.10

Electrical system

518i (E28)

1985 to 1988

Battery	V / CC / RC	12 / 44Ah
Alternator voltage / full load current / engine rpm		13.5 to 14.2 / _ / 1500
Starter motor current / voltage - cranking	A / V	160 / 9.0
- locked	A / V	—

Running gear

518i (E28)

1985 to 1988

Brakes -		
Front (min. friction material thickness)	mm	2.0
Rear (min. friction material thickness)	mm	3.0

Tyres		
Saloon	Size	175x14
Estate / Van	Size	—
Pressure - front / rear - Saloon	bar	2.0 / 2.0
- 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

518i (E28)

1985 to 1988

Cylinder head - stage 1	Nm	60±2
- stage 2	Nm	+ 33±3°
Cylinder head - stage 3	Nm	Warm engine for 25 mins.
- stage 4	Nm	+ 25±5°
Big-end bearings	Nm	52 to 57
Main bearings	Nm	58 to 63
Clutch cover	Nm	22 to 24¹
Flywheel [driveplate]	Nm	105±7 locked threads
Front hubs	Nm	WSM
Rear hubs	Nm	175 to 210
Wheel nuts / bolts	Nm	100±10
Spark plugs	Nm	26±2

Capacities

518i (E28)

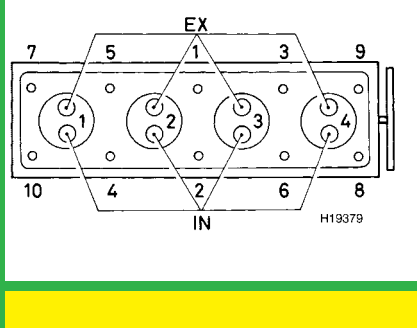
1985 to 1988

Engine oil & filter	litres	4.0
Gearbox - 4-speed [5-speed]	litres	1.0²
Automatic transmission - refill	litres	3.0
Final drive	litres	1.7
Cooling system	litres	7.0
Fuel tank	litres	70

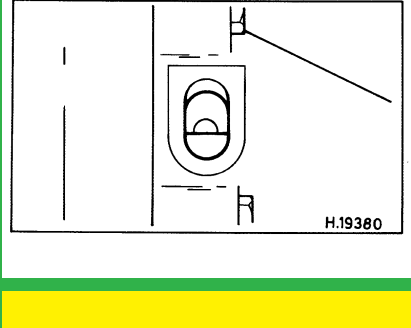
Notes and Illustrations

¹10.9 hex head bolt: 30 to 35
²245 type: 1.5

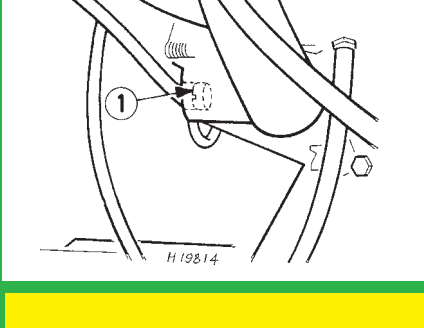
1: Idle speed 2: CO / Mixture



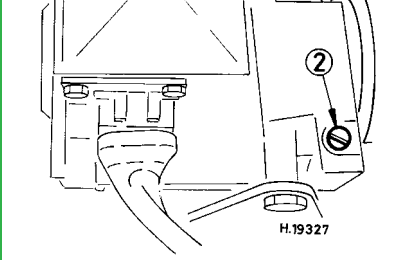
1766 cm³



1766 cm³



L-Jetronic, 1766 cm³



L-Jetronic