

MORGAN

Plus 8 Fi

1983 to 1990

Engine & Cooling

Fuel

Ignition

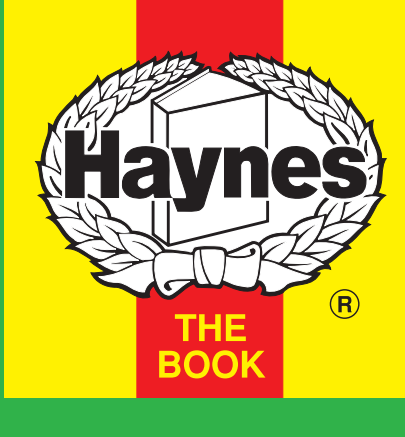
Electrical

Running gear

Torque settings

Capacities

Notes & Illustrations



Automotive Technical
DATA BOOK

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Engine and cooling system

Plus 8 Fi

1983 to 1990

Type		Rover V8
Capacity (cm ³) / number of cylinders		3946 / 8
Compression ratio / pressure	bar	9.75 / 9.0
Oil pressure	bar	2.4 [1.8 to 3.5]
Oil temperature	°C	80
Valve clearance - inlet	mm	0: Hyd.
Valve clearance - exhaust	mm	0: Hyd.
Firing order		1-8-4-3-6-5-7-2
No 1 cylinder position		PEL
Thermostat opening temperature	°C	88
Radiator cap pressure	bar	1.04

Fuel system

Plus 8 Fi

1983 to 1990

Idle speed - manual [auto]	rpm	825±25
Fast idle speed - manual [auto]	rpm	—
CO @ idle speed [3000 rpm] - see page VI	%	1.5±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		Lucas-Bosch
Type / ref		LE
Main jet / needle		—
Injection pressure	bar	1.8 to 2.5
Pump pressure	bar	1.8 to 2.5
Octane rating	RON	97[R]

Ignition system

Plus 8 Fi

1983 to 1990

Type		Electronic
Ignition coil		Lucas. Bosch
Primary resistance	ohms	0.71 to 0.81
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	—
Distributor		Lucas
Points gap (air gap)	mm	[0.15]
Dwell angle	° (%)	—
Condenser capacity	µF	—
Rotation		Clockwise
Ignition timing - basic [static	° Crankshaft @ rpm	8 BTDC @ 600
V = Vacuum NV = No Vacuum		V
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	14 to 15 @ 5000
Vacuum range check	mbar	102 to 406
Maximum vacuum advance	° Crankshaft	7 to 9
Spark plugs		Unipart/Champion
Type		GSP151 / RN9YC
Electrode gap	mm	0.90

Electrical system

Plus 8 Fi

1983 to 1990

Battery	V / CC / RC	12 / 58Ah
Alternator voltage / full load current / engine rpm		13.6 to 14.4 / _ / 3000
Starter motor current / voltage - cranking	A / V	—
- locked	A / V	505 to 550 / _

Running gear

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1983 to 1990

Brakes -		
Front (min. friction material thickness)	mm	1.5
Rear (min. friction material thickness)	mm	1.5

Tyres		
Saloon	Size	205/60x15
Estate / Van	Size	—
Pressure - front / rear - Saloon	bar	1.5 / 1.5
- Estate / Van	bar	—

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	0 to +3.2
Camber		-1°
Castor		+4°
King pin inclination		+2°

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	0
Camber		0

Torque wrench settings

Plus 8 Fi

1983 to 1990

Cylinder head - stage 1	Nm	Long bolts: 95
- stage 2	Nm	Short bolts: 68
Cylinder head - stage 3	Nm	—
- stage 4	Nm	—
Big-end bearings	Nm	47
Main bearings	Nm	75
Clutch cover	Nm	27
Flywheel [driveplate]	Nm	81
Front hubs	Nm	WSM
Rear hubs	Nm	110
Wheel nuts / bolts	Nm	88
Spark plugs	Nm	16

Capacities

Plus 8 Fi

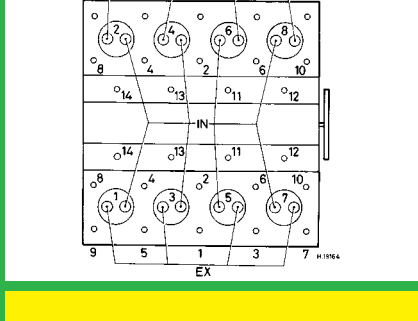
1983 to 1990

Engine oil & filter	litres	5.5
Gearbox - 4-speed [5-speed]	litres	1.6
Automatic transmission - refill	litres	—
Final drive	litres	1.4
Cooling system	litres	13.6
Fuel tank	litres	65

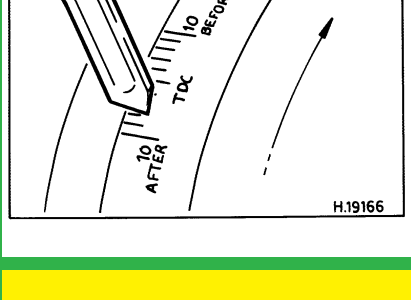
Notes and Illustrations

1: Idle speed

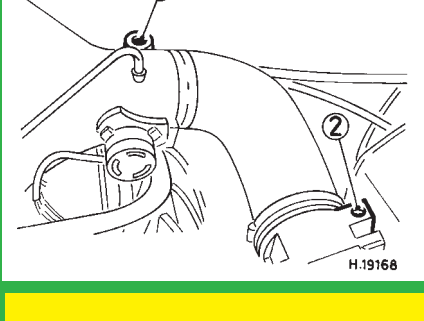
2: CO / Mixture



3528 cm³



3528 cm³



Lucas-Bosch LE