

Engine & Cooling

Fuel

Ignition

Electrical

Running gear

Torque settings

Capacities

Notes & Illustrations



Automotive Technical
DATA BOOK

Click on one of the buttons above to view data for this car. To return to this screen and make another choice, click anywhere on the data screen.

MENU

HELP

Engine and cooling system

Plus 8 3.9i

1990 to 1997

Type	Rover V8 OHV 138kW	
Capacity (cm ³) / number of cylinders	3946 / 8	
Compression ratio / pressure	bar	9.35 / 9.3
Oil pressure	bar	0.7 [1.7]
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 3.9i

1990 to 1997

Idle speed - manual [auto]	rpm	700±50 N/A
Fast idle speed - manual [auto]	rpm	—
CO @ idle speed [3000 rpm] - see page VI	%	≤0.5 N/A
HC @ idle speed [3000 rpm] - see page VI	ppm	—
CO2 @ idle speed [3000 rpm] - see page VI	%	—
O2 @ idle speed [3000 rpm] - see page VI	%	—
Carburettor / fuel injection	Lucas-Hitachi	
Type / ref	HMPI Hot wire	
Main jet / needle	—	
Injection pressure	bar	2.4
Pump pressure	bar	1.8 to 2.5
Octane rating	RON	95[U]

Ignition system

Plus 8 3.9i

1990 to 1997

Type	Electronic	
Ignition coil	Bosch 0 221 122 392	
Primary resistance	ohms	0.71 to 0.81
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	—
Distributor	Lucas	
Points gap (air gap)	mm	[0.20 to 0.36]
Dwell angle	° (%)	—
Condenser capacity	µF	—
Rotation	Clockwise	
Ignition timing - basic [static	° Crankshaft @ rpm	4±1 BTDC @ 800
V = Vacuum NV = No Vacuum	NV	
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	1 to 3 @ 650
	° Crankshaft @ rpm	8 to 10 @ 1400
	° Crankshaft @ rpm	7 to 10 @ 2200
Vacuum range check	mbar	—
Maximum vacuum advance	° Crankshaft	—
Spark plugs	Champion	
Type	RN9YC	
Electrode gap	mm	0.90

Electrical system

Plus 8 3.9i

1990 to 1997

Battery	V / CC / RC	12 / 58Ah
Alternator voltage / full load current / engine rpm	14.3 / _ / 3000	
Starter motor current / voltage - cranking	A / V	260 to 268 / 9.3 to 9.4
- locked	A / V	496 to 520 / 6.8 to 7.1

Running gear

Plus 8 3.9i

1990 to 1997

Brakes -		
Front (min. friction material thickness)	mm	1.5
Rear (min. friction material thickness)	mm	3.0

Tyres		
Saloon	Size	205/60x15: 205/55x16
Estate / Van	Size	—
Pressure - front / rear - Saloon	bar	1.5 / 1.5
- Estate / Van	bar	—

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	[0-30']
Camber	-0.5°	
Castor	+4°	
King pin inclination	+2°	

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

Torque wrench settings

Plus 8 3.9i

1990 to 1997

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 3.9i

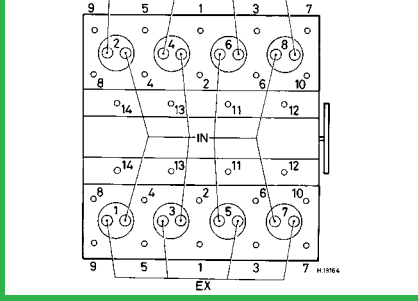
1990 to 1997

Engine oil & filter	litres	5.5
Gearbox - 4-speed [5-speed]	litres	2.4
Automatic transmission - refill	litres	—
Final drive	litres	1.4
Cooling system	litres	13.6
Fuel tank	litres	55

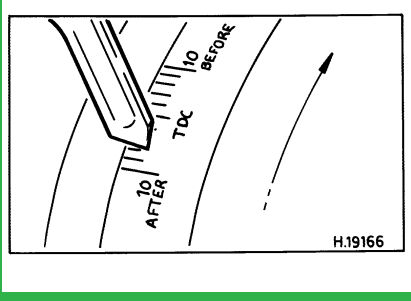
Notes and Illustrations

1: Idle speed

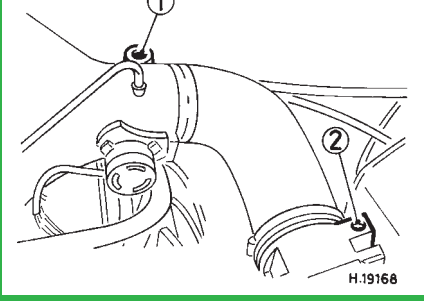
2: CO / Mixture



3946 cm³



3946 cm³



Lucas-Bosch HMPi