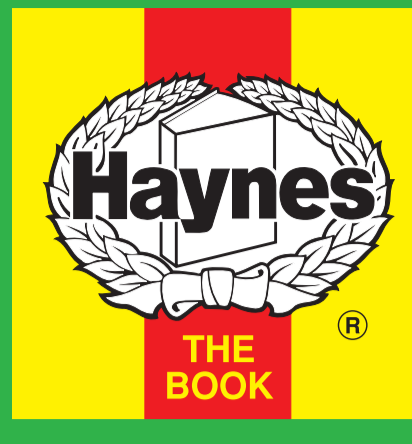


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Automotive Technical DATA BOOK

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HELP

Engine and cooling system Discovery 3.9i V8 1995 to 1997

Type	V8 134kW / 127kW	
Capacity (cm ³) / number of cylinders	3950 / 8	
Compression ratio / pressure	bar	8.13 or 9.35 / ≥10.2 or ≥11.5
Oil pressure	bar	[2.1 to 2.8]
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	FL	
Thermostat opening temperature	°C	88
Radiator cap pressure	bar	1.04

Fuel system Discovery 3.9i V8 1995 to 1997

Idle speed - manual [auto]	rpm	700±50
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	≤200
CO ₂ @ idle speed [3000 rpm] - see page VI	%	—
O ₂ @ idle speed [3000 rpm] - see page VI	%	—
Carburettor / fuel injection	_Lucas	
Type / ref	Hot wire	
Main jet / needle	—	
Injection pressure	bar	1.8 to 2.5
Pump pressure	bar	—
Octane rating	RON	[U] ¹

Ignition system Discovery 3.9i V8 1995 to 1997

Type	Electronic	
Ignition coil	Bosch 0.221.122.392	
Primary resistance	ohms	—
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	—
Distributor	Lucas	
Points gap (air gap)	mm	[0.2 to 0.35]
Dwell angle	° (%)	—
Condenser capacity	µF	—
Rotation	Clockwise	
Ignition timing - basic [static	° Crankshaft @ rpm	LC: 2° / HC: 5° BTDC @ 700±50
V = Vacuum NV = No Vacuum	NV	
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	5.5 to 8.5 @ 2200
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Vacuum range check	mbar	—
Maximum vacuum advance	° Crankshaft	—
Spark plugs	_/Champion	
Type	LC: RN12YC / HC: RN11YC	
Electrode gap	mm	0.84 to 0.96

Electrical system Discovery 3.9i V8 1995 to 1997

Battery	V / CC / RC	
Alternator voltage / full load current / engine rpm	14.0 / 100 / _	
Starter motor current / voltage - cranking	A / V	—
- locked	A / V	—

Running gear Discovery 3.9i V8 1995 to 1997

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

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

Front suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	0.0 to 2.0
Camber	0°	
Castor	3°	
King pin inclination	7°	

Rear suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	—
Camber	—	

Torque wrench settings Discovery 3.9i V8 1995 to 1997

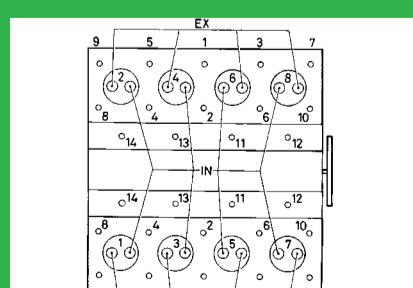
Cylinder head - stage 1	Nm	20
- stage 2	Nm	+180°
Cylinder head - stage 3	Nm	—
- stage 4	Nm	—
Big-end bearings	Nm	47 to 54
Main bearings	Nm	WSM
Clutch cover	Nm	28
Flywheel [driveplate]	Nm	80 locked
Front hubs	Nm	WSM
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	130
Spark plugs	Nm	21

Capacities Discovery 3.9i V8 1995 to 1997

Engine oil & filter	litres	6.76
Gearbox - 4-speed [5-speed]	litres	2.67. Transfer: 2.3
Automatic transmission - refill	litres	9.1
Final drive	litres	1.7. Rear: 1.7
Cooling system	litres	11.3
Fuel tank	litres	89

Notes and Illustrations

¹LC: 91 RON HC: 95 RON



3950 cm³