## LAND ROVER

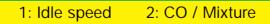
Range Rover 3.9i & Classic

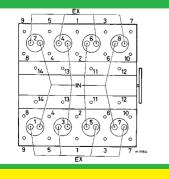
1989 to 1996

Engine & Fuel Igr Cooling	nition Electrical	Running gear	Torque settings	Capacities	Notes & Illustrations
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Engine and cooling	system	Range	Rover 3.9i &	Classic 1	989 to 1996
Type Capacity (cm <sup>3</sup> ) / number of Compression ratio / pressur	-	bar	3.9L V8 OHV 3947 / 8 9.35 / ≥9.3	136kW	
Oil pressure Oil temperature		bar °C	[2.1 to 2.8] _		
Valve clearance - inlet Valve clearance - exhaust Firing order		mm mm	0: Hyd. 0: Hyd. 1-8-4-3-6-5-	7-2	
No 1 cylinder position Thermostat opening temper Radiator cap pressure	ature	°C bar	FL 88 1.04		
Fuel system		Range	Rover 3.9i &		989 to 1996
Idle speed - manual [auto] Fast idle speed - manual [au CO @ idle speed [3000 rpm]		rpm rpm %	525±25 Base 	idle	
HC @ idle speed [3000 rpm CO2 @ idle speed [3000 rpr	] - see page VI m] - see page VI	ppm %	≤200 -		
O2 @ idle speed [3000 rpm] Carburettor / fuel injection Type / ref	- see page VI	%	_ Lucas L-Jetronic Ho	ot Wire	
Main jet / needle Injection pressure Pump pressure		bar bar	- 2.3 to 2.6		
Octane rating		RON	95[U]	Classic 1	090 to 1006
Type Ignition coil		Kange	Rover 3.9i & Electronic Bosch		909 10 1990
Primary resistance Ballast resistor	oarth	ohms ohms V	_		
Voltage - Tmnl 15(+) to Distributor Points gap (air gap)	earth	mm	_ Lucas [0.20 to 0.36]		
Dwell angle Condenser capacity Rotation		° (%) µF	– – Clockwise		
Ignition timing - basic [station V = Vacuum NV = No	Vacuum		6±1 @ 800 NV		
Total ignition advance	<ul> <li>° Crankshaf</li> <li>° Crankshaf</li> <li>° Crankshaf</li> </ul>	t @ rpm	_ _		
Centrifugal check.	<ul> <li>° Crankshaf</li> <li>° Crankshaf</li> <li>° Crankshaf</li> </ul>	t @ rpm	2 to 6 @ 1200 17 to 21 @ 28 16 to 22 @ 40	800	
Vacuum range check Maximum vacuum ad		mbar ankshaft	_		
Spark plugs Type Electrode gap		mm	Champion RN12YCC 0.85 to 0.95		
Electrical system Battery	N//	Range	Rover 3.9i & 12 / 210 / 85		
Alternator voltage / full load Starter motor current / volta	current / engine rpm ge - cranking	ר A / V	13.6 to 14.4		
Running gear	- locked	A / V Range	– Rover 3.9i &	Classic 1 <sup>0</sup>	989 to 1996
Brakes - Front (min. friction mate Rear (min. friction mate	•	mm	_		
Rear (min. friction mate Tyres Saloon		mm Size	_		
Estate / Van Pressure - front / rear - -	Saloon Estate / Van	Size bar bar	205x16 _ 1.9 / 2.1		
Front suspension / wheel Toe-in (+) / Toe-out (-) Camber		mm [°]	-1.2 to -2.4		
Castor King pin inclination			+3° +7°		
Rear suspension / wheel a Toe-in (+) / Toe-out (–) Camber	alignment	mm [º]			
Torque wrench set	tings	Range Nm	<b>Rover 3.9i &amp;</b> No 1 to 10: 8		989 to 1996
Cylinder head - stage 1 - stage 2 Cylinder head - stage 3		Nm Nm	No11 to 14: 5		
- stage 4 Big-end bearings Main bearings		Nm Nm Nm	47 to 54		
Clutch cover Flywheel [driveplate]		Nm Nm	24 to 30 74 to 81		
Front hubs Rear hubs Wheel nuts / bolts		Nm Nm Nm	41 to 52 41 to 52 Steel: 102 to	115²	
Spark plugs Capacities		Nm Range	19 to 22 Rover 3.9i &	Classic 1	989 to 1996
Engine oil & filter Gearbox - 4-speed [5-speed	-	litres litres	5.7 2.7. Transfer:	2.5	
Automatic transmission - re Final drive Cooling system	fill	litres litres litres	9.1. Transfer: Front & rear: 11.3		
Fuel tank		litres	76.4 <sup>3</sup>		

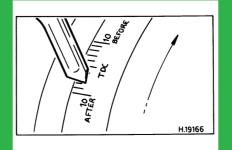
## **Notes and Illustrations**

<sup>1</sup>No 1 to 4: 68 to 75. Others: 88 to 95 <sup>2</sup>Alloy: 122 to 129 <sup>3</sup>91 ▶93: 81.8. 93 ▶: 88.5

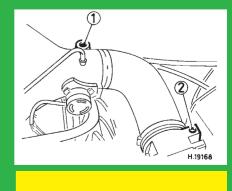




**3947 cm<sup>3</sup>** 



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**L-Jetronic**