

Engine & Cooling

Fuel

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Automotive Technical
DATA BOOK

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Engine and cooling systemEsprit HC1987 to 1990

Type		DOHC 16V
Capacity (cm ³) / number of cylinders		2173 / 4
Compression ratio / pressure	bar	10.9 / ≥11.5
Oil pressure	bar	0.35 [2.4]
Oil temperature	°C	80
Valve clearance - inlet	mm	0.13 to 0.18
Valve clearance - exhaust	mm	0.25 to 0.31
Firing order		1-3-4-2
No 1 cylinder position		F
Thermostat opening temperature	°C	82
Radiator cap pressure	bar	1.0

Fuel systemEsprit HC1987 to 1990

Idle speed - manual [auto]	rpm	900 to 1000
Fast idle speed - manual [auto]	rpm	—
CO @ idle speed [3000 rpm] - see page VI	%	0.5 to 1.5
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		Dellorto
Type / ref		DHLA 45D
Main jet / needle		135
Injection pressure	bar	—
Pump pressure	bar	0.27±0.02
Octane rating	RON	97[E 98 RON]

Ignition systemEsprit HC1987 to 1990

Type		Electronic
Ignition coil		Lucas 32C5
Primary resistance	ohms	—
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	≤1.0 below battery voltage
Distributor		Lucas
Points gap (air gap)	mm	[0.2 to 0.35]
Dwell angle	° (%)	—
Condenser capacity	µF	—
Rotation		Anticlockwise
Ignition timing - basic [static	° Crankshaft @ rpm	10 BTDC @ idle
V = Vacuum NV = No Vacuum		V
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	0 @ 1000
	° Crankshaft @ rpm	8 @ 2000
	° Crankshaft @ rpm	16 @ 3000
Vacuum range check	mbar	—
Maximum vacuum advance	° Crankshaft	22
Spark plugs		NGK/Champion
Type		BPR7ES / RN7YC
Electrode gap	mm	0.90

Electrical systemEsprit HC1987 to 1990

Battery	V / CC / RC	12 / 55Ah
Alternator voltage / full load current / engine rpm		13.5 to 15.0 / _ / 3000
Starter motor current / voltage - cranking	A / V	—
- locked	A / V	—

Running gearEsprit HC1987 to 1990

Brakes -		
Front (min. friction material thickness)	mm	2.0
Rear (min. friction material thickness)	mm	2.5

Tyres		
Saloon	Size	Fr. 195/60x15. Rr. 235/60x15
Estate / Van	Size	—
Pressure - front / rear - Saloon	bar	1.5 / 1.7
- Estate / Van	bar	—

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	+1.6+0-1.0 PW
Camber		-30'±30'
Castor		+1°45' to 3°
King pin inclination		+9°23'

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	+1.5±0.5 PW
Camber		-30'±15'

Torque wrench settingsEsprit HC1987 to 1990

Cylinder head - stage 1	Nm	Front & rear pairs: 97 ¹
- stage 2	Nm	3 centre pairs: 104 ¹
Cylinder head - stage 3	Nm	—
- stage 4	Nm	—
Big-end bearings	Nm	114 to 117
Main bearings	Nm	M12: 88. M8: 20
Clutch cover	Nm	23 to 26
Flywheel [driveplate]	Nm	75
Front hubs	Nm	29
Rear hubs	Nm	270
Wheel nuts / bolts	Nm	100
Spark plugs	Nm	33 to 38

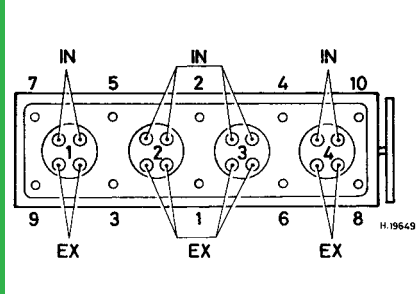
CapacitiesEsprit HC1987 to 1990

Engine oil & filter	litres	5.4
Gearbox - 4-speed [5-speed]	litres	3.0
Automatic transmission - refill	litres	—
Final drive	litres	WT
Cooling system	litres	12.0
Fuel tank	litres	67

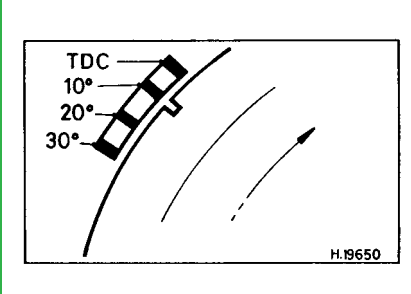
Notes and Illustrations

¹Tighten evenly and gradually to these figures

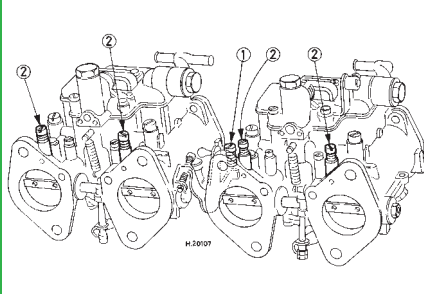
1: Idle speed2: CO / Mixture



2173 cm³



2173 cm³



Dellorto DHLA