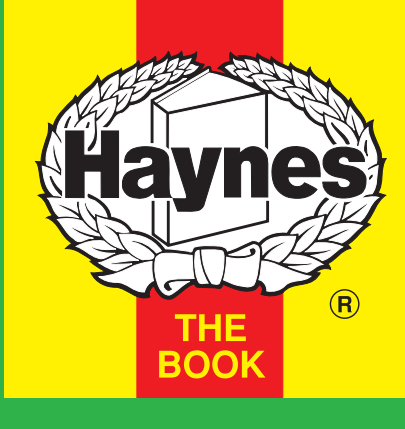


Engine & Cooling	Fuel	Ignition	Electrical	Running gear	Torque settings	Capacities	Notes & Illustrations
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Automotive Technical
DATA BOOK

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MENU	HELP
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Engine and cooling systemSierra & Sapphire 1.6i CAT1990 to 1993

Type		L6B (CVH) 59kW US83
Capacity (cm³) / number of cylinders		1596 / 4
Compression ratio / pressure	bar	9.0 / 12 to 14
Oil pressure	bar	1.0 [2.8]
Oil temperature	°C	80
Valve clearance - inlet	mm	0: Hyd.
Valve clearance - exhaust	mm	0: Hyd.
Firing order		1-3-4-2
No 1 cylinder position		TBE
Thermostat opening temperature	°C	85 to 89
Radiator cap pressure	bar	1.00 to 1.25

Fuel systemSierra & Sapphire 1.6i CAT1990 to 1993

Idle speed - manual [auto]	rpm	900±50
Fast idle speed - manual [auto]	rpm	—
CO @ idle speed [3000 rpm] - see page VI	%	≤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		Weber
Type / ref		CFI with EEC-IV control
Main jet / needle		—
Injection pressure	bar	1.0
Pump pressure	bar	3.0
Octane rating	RON	95[U]

Ignition systemSierra & Sapphire 1.6i CAT1990 to 1993

Type		DIS
Ignition coil		High output twin coils
Primary resistance	ohms	0.50±0.05
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	—
Distributor		Motorcraft
Points gap (air gap)	mm	—
Dwell angle	° (%)	—
Condenser capacity	µF	—
Rotation		Clockwise
Ignition timing - basic [static	° Crankshaft @ rpm	10±2 BTDC @ idle N/A
V = Vacuum NV = No Vacuum		V
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	Computer control
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Vacuum range check	mbar	Computer control
Maximum vacuum advance	° Crankshaft	—
Spark plugs		Motorcraft/Champion
Type		AGPR32CD1 / RC7YCC
Electrode gap	mm	1.00

Electrical systemSierra & Sapphire 1.6i CAT1990 to 1993

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

Running gearSierra & Sapphire 1.6i CAT1990 to 1993

Brakes -		
Front (min. friction material thickness)	mm	1.5
Rear (min. friction material thickness)	mm	1.0

Tyres		
Saloon	Size	165x13: 185/65x14
Estate / Van	Size	185/70x13:185/65x14: 195/65x14
Pressure - front / rear - Saloon	bar	1.8 / 1.8
- Estate / Van	bar	1.8 / 1.8

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	+2.0±1.0
Camber		-21'±1°. Estate: -19'±1°
Castor		+1°52'. Est: +1°50'+1°30'-1°
King pin inclination		—

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

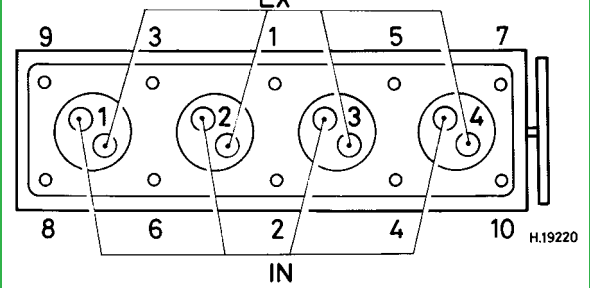
Torque wrench settingsSierra & Sapphire 1.6i CAT1990 to 1993

Cylinder head - stage 1	Nm	20 to 40
- stage 2	Nm	40 to 60
Cylinder head - stage 3	Nm	+ 90°
- stage 4	Nm	+ 90°
Big-end bearings	Nm	30 to 36
Main bearings	Nm	90 to 100
Clutch cover	Nm	20 to 25
Flywheel [driveplate]	Nm	82 to 92
Front hubs	Nm	310 to 350
Rear hubs	Nm	250 to 290
Wheel nuts / bolts	Nm	70 to 100
Spark plugs	Nm	17 to 33

CapacitiesSierra & Sapphire 1.6i CAT1990 to 1993

Engine oil & filter	litres	3.5
Gearbox - 4-speed [5-speed]	litres	1.25
Automatic transmission - refill	litres	—
Final drive	litres	0.9
Cooling system	litres	9.5
Fuel tank	litres	60

Notes and Illustrations



1596 cm³