

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

Sierra & Sapphire 1.6

1987 to 1991

Type		LSE (OHC) 55kW 15.04
Capacity (cm³) / number of cylinders		1597 / 4
Compression ratio / pressure	bar	9.5 / 11 to 13
Oil pressure	bar	1.0 [2.5]
Oil temperature	°C	80
Valve clearance - inlet	mm	0.20±0.03
Valve clearance - exhaust	mm	0.25±0.03
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 system

Sierra & Sapphire 1.6

1987 to 1991

Idle speed - manual [auto]	rpm	800±50
Fast idle speed - manual [auto]	rpm	1700±100
CO @ idle speed [3000 rpm] - see page VI	%	1.5±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		2V (DFTH)
Main jet / needle		97, 110 [95, 115 economy]
Injection pressure	bar	—
Pump pressure	bar	0.24 to 0.38
Octane rating	RON	97[R] ¹

Ignition system

Sierra & Sapphire 1.6

1987 to 1991

Type		Electronic
Ignition coil		Bosch, Femsa, Polmot
Primary resistance	ohms	0.72 to 0.88
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	—
Distributor		—
Points gap (air gap)	mm	—
Dwell angle	° (%)	—
Condenser capacity	µF	—
Rotation		Clockwise
Ignition timing - basic [static	° Crankshaft @ rpm	10 BTDC @ idle
V = Vacuum NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	13 to 29 @ 2000
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	1 to 8 @ 2000
	° Crankshaft @ rpm	5.5 to 12 @ 3000
	° Crankshaft @ rpm	9 to 16 @ 4000
Vacuum range check	mbar	0 to 280
Maximum vacuum advance	° Crankshaft	13 to 29
Spark plugs		Motorcraft/Champion
Type		BRF32C / F7YC
Electrode gap	mm	0.75

Electrical system

Sierra & Sapphire 1.6

1987 to 1991

Battery	V / CC / RC	12 / 200 / 70 or 250 / 80
Alternator voltage / full load current / engine rpm		13.5 / _ / 3000
Starter motor current / voltage - cranking	A / V	—
- locked	A / V	—

Running gear

Sierra & Sapphire 1.6

1987 to 1991

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

Tyres		
Saloon	Size	165x13: 195/65x14: 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'+1°30'-1°2
King pin inclination		—

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

Torque wrench settings

Sierra & Sapphire 1.6

1987 to 1991

Cylinder head - stage 1	Nm	35 to 40
- stage 2	Nm	70 to 75
Cylinder head - stage 3	Nm	Wait 5 min. + 90°
- stage 4	Nm	—
Big-end bearings	Nm	40 to 47
Main bearings	Nm	88 to 102
Clutch cover	Nm	17 to 21
Flywheel [driveplate]	Nm	68 to 74
Front hubs	Nm	310 to 350
Rear hubs	Nm	250 to 290
Wheel nuts / bolts	Nm	70 to 100
Spark plugs	Nm	20 to 28

Capacities

Sierra & Sapphire 1.6

1987 to 1991

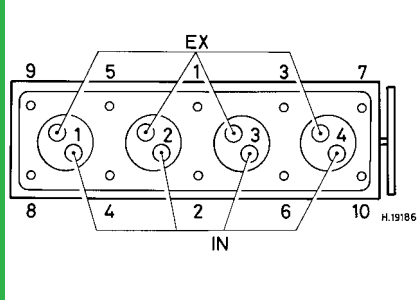
Engine oil & filter	litres	3.75
Gearbox - 4-speed [5-speed]	litres	B: 1.5 C/N: 1.25
Automatic transmission - refill	litres	—
Final drive	litres	6.5: 0.8. 7.0: 0.9
Cooling system	litres	8.0
Fuel tank	litres	60

Notes and Illustrations

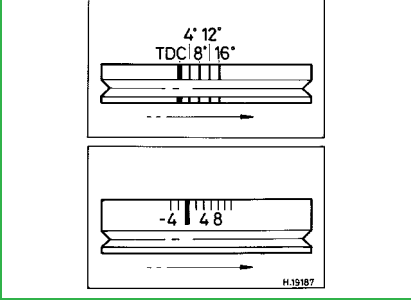
¹91 ►: [E 95 RON]
²Est: +1°50'+1°30'-1°

1: Idle speed

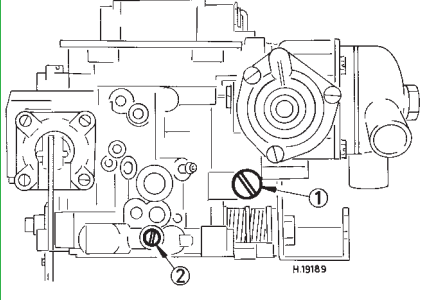
2: CO / Mixture



1597 cm³



1597 cm³



Weber 2V