

Engine & Cooling

Fuel

Ignition

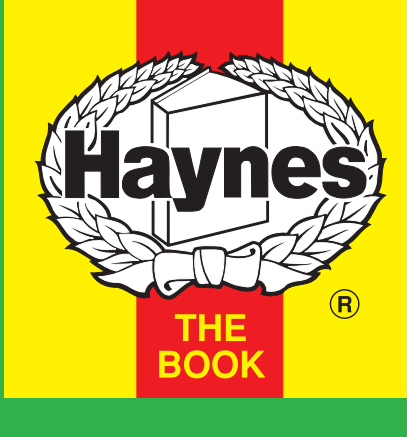
Electrical

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

XJ6 & Sovereign 2.9 & CAT

1989 to 1990

Type		AJ-6
Capacity (cm ³) / number of cylinders		2919 / 6
Compression ratio / pressure	bar	11.2 / 14.5
Oil pressure	bar	2.1
Oil temperature	°C	80
Valve clearance - inlet	mm	0.30 to 0.34
Valve clearance - exhaust	mm	0.30 to 0.34
Firing order		1-5-3-6-2-4
No 1 cylinder position		TCE
Thermostat opening temperature	°C	88
Radiator cap pressure	bar	1.0

Fuel system

XJ6 & Sovereign 2.9 & CAT

1989 to 1990

Idle speed - manual [auto]	rpm	650±50 (500 to 550 base idle)
Fast idle speed - manual [auto]	rpm	—
CO @ idle speed [3000 rpm] - see page VI	%	1.0 to 2.0
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		Lucas-Bosch
Type / ref		LH Electronic
Main jet / needle		—
Injection pressure	bar	3.0 above manifold pres.
Pump pressure	bar	2.5
Octane rating	RON	95[E 95 RON] ¹

Ignition system

XJ6 & Sovereign 2.9 & CAT

1989 to 1990

Type		Computerized
Ignition coil		Bosch TC1
Primary resistance	ohms	0.45 to 0.55
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	—
Distributor		Bosch
Points gap (air gap)	mm	—
Dwell angle	° (%)	—
Condenser capacity	µF	—
Rotation		Clockwise
Ignition timing - basic [static	° Crankshaft @ rpm	6 to 8 BTDC @ idle
V = Vacuum NV = No Vacuum		—
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		Champion
Type		N3C
Electrode gap	mm	0.64

Electrical system

XJ6 & Sovereign 2.9 & CAT

1989 to 1990

Battery	V / CC / RC	12 / 65Ah
Alternator voltage / full load current / engine rpm		13.8 to 15.0 / _ / 3000
Starter motor current / voltage - cranking	A / V	—
- locked	A / V	—

Running gear

XJ6 & Sovereign 2.9 & CAT

1989 to 1990

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

Tyres		
Saloon	Size	220/65x390
Estate / Van	Size	—
Pressure - front / rear - Saloon	bar	2.3 / 2.3
- Estate / Van	bar	—

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	0 to +1.6
Camber		0 to -30'
Castor		+3°30' to 4°
King pin inclination		+8°30'

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	[-10']
Camber		-30' to -1°

Torque wrench settings

XJ6 & Sovereign 2.9 & CAT

1989 to 1990

Cylinder head - stage 1	Nm	Nuts: 82 to 86
- stage 2	Nm	Bolts: 23 to 27
Cylinder head - stage 3	Nm	—
- stage 4	Nm	—
Big-end bearings	Nm	52 to 55
Main bearings	Nm	136 to 142
Clutch cover	Nm	23 to 27
Flywheel [driveplate]	Nm	98 [49 to 54]
Front hubs	Nm	WSM
Rear hubs	Nm	—
Wheel nuts / bolts	Nm	75. Alloy: 95
Spark plugs	Nm	—

Capacities

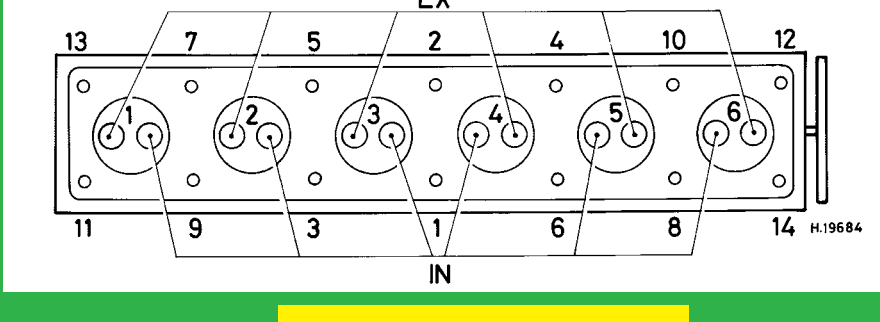
XJ6 & Sovereign 2.9 & CAT

1989 to 1990

Engine oil & filter	litres	8.0
Gearbox - 4-speed [5-speed]	litres	1.4
Automatic transmission - refill	litres	7.4
Final drive	litres	2.1
Cooling system	litres	12.3
Fuel tank	litres	86.6

Notes and Illustrations

¹CAT: [U]



2919 cm³