

Engine & Cooling

Fuel

Ignition

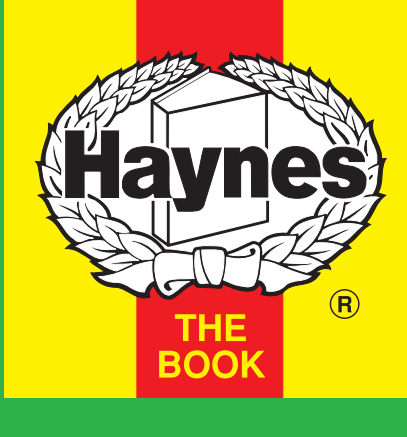
Electrical

Running gear

Torque settings

Capacities

Notes & Illustrations



Automotive Technical
DATA BOOK

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Engine and cooling systemSJ 410 & Santana1983 to 1991

Type		OHC
Capacity (cm ³) / number of cylinders		970 / 4
Compression ratio / pressure	bar	8.8 / ≥11.7
Oil pressure	bar	[3.0 to 4.4]
Oil temperature	°C	85
Valve clearance - inlet	mm	0.13 to 0.18
- exhaust	mm	0.13 to 0.18
Firing order		1-3-4-2
No 1 cylinder position		TBE
Thermostat opening temperature	°C	82
Radiator cap pressure	bar	0.90

Fuel systemSJ 410 & Santana1983 to 1991

Idle speed - manual [auto]	rpm	850±50
Fast idle speed - manual [auto]	rpm	—
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		Aisan
Type / ref		80000 Downdraught
Main jet / needle		113
Injection pressure	bar	—
Pump pressure	bar	0.20 to 0.30
Octane rating	RON	91[E 91 RON]

Ignition systemSJ 410 & Santana1983 to 1991

Type		Contact breaker - CIS
Ignition coil		Nippon Denso
Primary resistance	ohms	3.0
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	—
Distributor		Nippon Denso
Points gap (air gap)	mm	0.40 to 0.50
Dwell angle	° (%)	52±3
Condenser capacity	µF	—
Rotation		Clockwise
Ignition timing - basic [static	° Crankshaft @ rpm	10 BTDC @ 850 max.
V = Vacuum NV = No Vacuum		—
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	0 @ 700 to 1250
	° Crankshaft @ rpm	9 to 12 @ 3000
	° Crankshaft @ rpm	17 to 20 @ 5500
Vacuum range check	mbar	67 to 433
Maximum vacuum advance	° Crankshaft	18 to 22
Spark plugs		NGK/Champion
Type		BPR5ES / RN9YC
Electrode gap	mm	0.70 to 0.80

Electrical systemSJ 410 & Santana1983 to 1991

Battery	V / CC / RC	12 / 150 / 55 or 190 / 65
Alternator voltage / full load current / engine rpm		14.2 to 14.8 / _ / 3000
Starter motor current / voltage - cranking	A / V	270 / 9.5
- locked	A / V	600 / 7.7

Running gearSJ 410 & Santana1983 to 1991

Brakes -		
Front (min. friction material thickness)	mm	6.0 with backing
Rear (min. friction material thickness)	mm	3.0

Tyres		
Saloon	Size	—
Estate / Van	Size	6.00x16: 195x15
Pressure - front / rear - Saloon	bar	—
- Estate / Van	bar	1.4 / 1.4

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	+2.0 to 6.0
Camber		+1°
Castor		+2°30'
King pin inclination		+9°

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

Torque wrench settingsSJ 410 & Santana1983 to 1991

Cylinder head - stage 1	Nm	55 to 60
- stage 2	Nm	—
- stage 3	Nm	—
- stage 4	Nm	—
Big-end bearings	Nm	28 to 32
Main bearings	Nm	43 to 48
Clutch cover	Nm	18 to 28
Flywheel [driveplate]	Nm	40 to 45
Front hubs	Nm	150 to 270
Rear hubs	Nm	80 to 120
Wheel nuts / bolts	Nm	50 to 80
Spark plugs	Nm	20 to 30

CapacitiesSJ 410 & Santana1983 to 1991

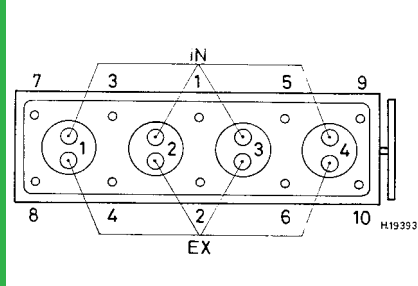
Engine oil & filter	litres	3.2
Gearbox - 4-speed [5-speed]	litres	1.0 [1.3] ¹
Automatic transmission - refill	litres	—
Final drive	litres	Rear: 1.3 ²
Cooling system	litres	4.0
Fuel tank	litres	40

Notes and Illustrations

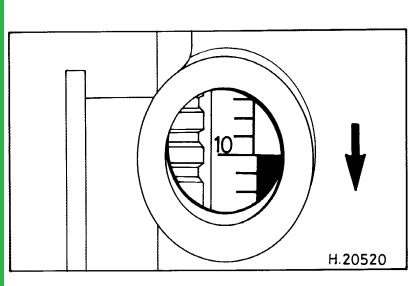
¹Transfer box: 0.8

²Front: 1.5

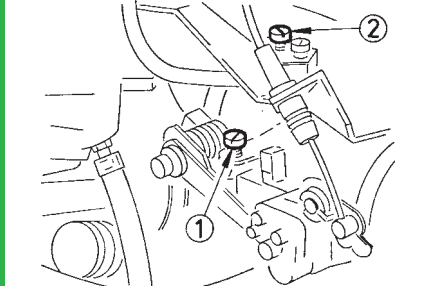
1: Idle speed 2: CO / Mixture



970 cm³



970 cm³



Aisan 80000