ALFA ROMEO

33, 1.3IE, S'wagon, 4x4 CAT

1990 to 1994

Haynes THE BOOK ®

Automotive Technical DATA BOOK

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Engine and cooling system

		33, 1.3IE, S'wagon, 4x4 CAT 1990 to 1994
Type		307.53 SOHC (65kW)
Capacity (cm³) / number of cylinders		1351 / 4
Compression ratio / pressure	bar	9.5 / 10.3
Oil pressure	bar	1.2 to 2.8
Oil temperature	ºC	90
Valve clearance - inlet	mm	0.35 to 0.40
Valve clearance - exhaust	mm	0.45 to 0.50
Firing order		1-3-2-4
No 1 cylinder position		FR
Thermostat opening temperature	ºC	84 to 88
Radiator cap pressure	bar	0.9 to 1.1

Fuel system

		33, 1.3IE, S'wagon, 4x4 CAT 1990 to 1994
Idle speed - manual [auto]	rpm	N/A
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	≤0.3
HC @ idle speed [3000 rpm] - see page VI	ppm	≤200
CO2 @ idle speed [3000 rpm] - see page VI	%	_
O2 @ idle speed [3000 rpm] - see page VI	%	_
Carburettor / fuel injection		Weber-Marelli
Type / ref		IAW
Main jet / needle		_
Injection pressure	bar	2.5±0.2
Pump pressure	bar	_
Octane rating	RON	95[U]

Ignition system

		33, 1.3IE, S'wagon, 4x4 CAT 1990 to 1994
Type		IAW
Ignition coil		Twin
Primary resistance	ohms	_
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	12.0
Distributor		_
Points gap (air gap)	mm	_
Dwell angle	º (%)	_
Condenser capacity	µF	_
Rotation		_
Ignition timing - basic [static	º Crankshaft @ rpm	Computer control
V = Vacuum NV = No Vacuum		_
Total ignition advance	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
Centrifugal check.	º Crankshaft @ rpm	Computer control
	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
Vacuum range check	mbar	Computer control
Maximum vacuum advance	º Crankshaft	_
Spark plugs		Champion
Type		N6YCC
Electrode gap	mm	0.80

Electrical system

		33, 1.3IE, S'wagon, 4x4 CAT 1990 to 1994
Battery	V / CC / RC	12 / 255 / 50Ah
Alternator voltage / full load current / engine rpm		14.0 / 55 / 4000
Starter motor current / voltage - cranking	A / V	300 / 9.0
- locked	A / V	400 / 5.0

Running gear

		33, 1.3IE, S'wagon, 4x4 CAT 1990 to 1994
Brakes -		
Front (min. friction material thickness)	mm	7.0 with backing
Rear (min. friction material thickness)	mm	0.50. Discs: 6.5
Tyres		
Saloon	Size	165/70x13
Estate / Van	Size	165/70x13
Pressure - front / rear - Saloon	bar	1.8 / 1.8
- Estate / Van	bar	2.2 / 1.8
Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [º]	-4.0±2.0
Camber		+1°14'±30'
Castor		+2°±30'
King pin inclination		_
Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [º]	[0±25']
Camber		0±25'

Torque wrench settings

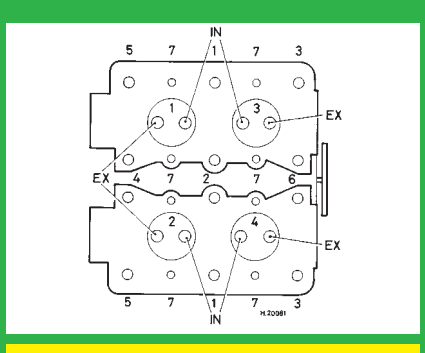
		33, 1.3IE, S'wagon, 4x4 CAT 1990 to 1994
Cylinder head - stage 1	Nm	29 oiled
- stage 2	Nm	58
Cylinder head - stage 3	Nm	81 to 87
- stage 4	Nm	81 to 87[1]
Big-end bearings	Nm	43 to 48
Main bearings	Nm	66 to 73 oiled[2]
Clutch cover	Nm	15 to 23
Flywheel [driveplate]	Nm	94 to 105 oiled
Front hubs	Nm	427 to 472
Rear hubs	Nm	WSM[3]
Wheel nuts / bolts	Nm	88 to 108
Spark plugs	Nm	25 to 34

Capacities

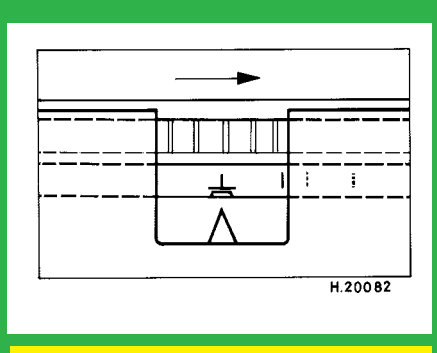
		33, 1.3IE, S'wagon, 4x4 CAT 1990 to 1994
Engine oil & filter	litres	4.0
Gearbox - 4-speed [5-speed]	litres	2.6
Automatic transmission - refill	litres	_
Final drive	litres	4x4 rear: 1.0
Cooling system	litres	7.8
Fuel tank	litres	50. 4x4: 53

Notes and Illustrations

[1]**Warm engine, cool, slacken, oil, and retorque bolts in sequence shown to stage 4. No.7: 20 to 24**
[2]**Transverse screws: 40 to 49**
[3]**Disc brakes: 250 to 300**



1351 cm³



1351 cm³