ALFA ROMEO

33, 1.7IE, S'wagon/4x4 & CAT

1990 to 1993

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Automotive Technical DATA BOOK

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Engine and cooling system

		33, 1.7IE, S'wagon/4x4 & CAT 1990 to 1993
Type		307.36 SOHC (79kW)[1]
Capacity (cm³) / number of cylinders		1712 / 4
Compression ratio / pressure	bar	9.5 / 10.3
Oil pressure	bar	2.0 [4.4]
Oil temperature	ºC	90
Valve clearance - inlet	mm	0: Hyd.
Valve clearance - exhaust	mm	0: Hyd.
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, 1.7IE, S'wagon/4x4 & CAT 1990 to 1993
Idle speed - manual [auto]	rpm	800 to 900. CAT: 900 to 1050
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	≤300
CO2 @ idle speed [3000 rpm] - see page VI	%	_
O2 @ idle speed [3000 rpm] - see page VI	%	_
Carburettor / fuel injection		Bosch
Type / ref		LE3.1 Jetronic
Main jet / needle		_
Injection pressure	bar	2.8 to 3.2
Pump pressure	bar	_
Octane rating	RON	98[E 95 RON][2]

Ignition system

		33, 1.7IE, S'wagon/4x4 & CAT 1990 to 1993
Type		EZ10
Ignition coil		Bosch. Marelli. Ducellier
Primary resistance	ohms	0.7 to 1.0 (typical)
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	_
Distributor		Bosch/Marelli[3]
Points gap (air gap)	mm	[0.40 to 0.50]
Dwell angle	º (%)	_
Condenser capacity	µF	_
Rotation		Clockwise
Ignition timing - basic [static	º Crankshaft @ rpm	8±1 BTDC @ 900
V = Vacuum NV = No Vacuum		NV
Total ignition advance	º Crankshaft @ rpm	32 BTDC @ 5250
	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
Centrifugal check.	º Crankshaft @ rpm	-1 to +1 @ 2000
	º Crankshaft @ rpm	-1 to +2 @ 3000
	º Crankshaft @ rpm	16 to 20 @ 6000
Vacuum range check	mbar	100 to 400
Maximum vacuum advance	º Crankshaft	16 to 20
Spark plugs		Lodge/Champion
Type		25HL / N6YCC
Electrode gap	mm	Champion: 0.80

Electrical system

		33, 1.7IE, S'wagon/4x4 & CAT 1990 to 1993
Battery	V / CC / RC	12 / 225 / 50, 255 / 55Ah
Alternator voltage / full load current / engine rpm		13.8 to 14.4 / _ / 4000
Starter motor current / voltage - cranking	A / V	200 to 230 / 9.8 to 10.0
- locked	A / V	380 to 400 / 8.0

Running gear

		33, 1.7IE, S'wagon/4x4 & CAT 1990 to 1993
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	185/60x14
Estate / Van	Size	185/60x14
Pressure - front / rear - Saloon	bar	2.0 / 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°±30'. 4x4: +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

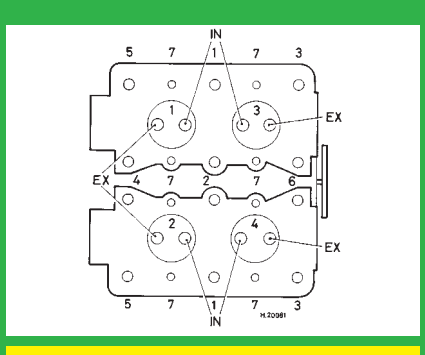
		33, 1.7IE, S'wagon/4x4 & CAT 1990 to 1993
Cylinder head - stage 1	Nm	29 oiled
- stage 2	Nm	58
Cylinder head - stage 3	Nm	81 to 87
- stage 4	Nm	81 to 87[4]
Big-end bearings	Nm	43 to 48
Main bearings	Nm	66 to 73 oiled[5]
Clutch cover	Nm	15 to 23
Flywheel [driveplate]	Nm	94 to 105 oiled
Front hubs	Nm	427 to 472
Rear hubs	Nm	WSM[6]
Wheel nuts / bolts	Nm	88 to 108
Spark plugs	Nm	25 to 34

Capacities

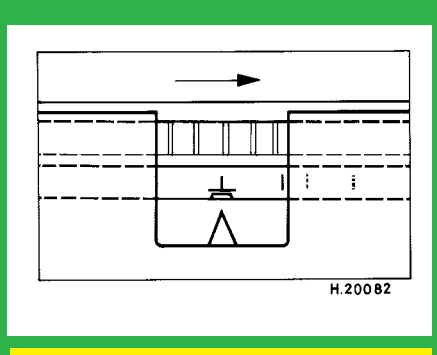
		33, 1.7IE, S'wagon/4x4 & CAT 1990 to 1993
Engine oil & filter	litres	4.0
Gearbox - 4-speed [5-speed]	litres	2.6
Automatic transmission - refill	litres	_
Final drive	litres	4x4 rear: 1.0
Cooling system	litres	7.8. Sportwagon:7.3
Fuel tank	litres	50. 4x4: 53

Notes and Illustrations

[1]**CAT: 307.37 80kW**
[2]**CAT: 95 [U]**
[3]**& Ducellier**
[4]**Warm engine, cool, slacken, oil, and retorque bolts in sequence shown to stage 4. No.7: 20 to 24**
[5]**Transverse screws: 40 to 49**
[6]**Disc brakes: 250 to 300**



1712 cm³, 8V



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