

Engine & Cooling

Fuel

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Automotive Technical
DATA BOOK

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Engine and cooling systemF80 & Fourtrak1984 to 1992

Type		3Y OHV
Capacity (cm³) / number of cylinders		1998 / 4
Compression ratio / pressure	bar	8.8 / 12.3
Oil pressure	bar	[2.6 to 4.9]
Oil temperature	°C	80
Valve clearance - inlet	mm	0: Hyd.
Valve clearance - exhaust	mm	0: Hyd.
Firing order		1-3-4-2
No 1 cylinder position		TCE
Thermostat opening temperature	°C	80 to 84
Radiator cap pressure	bar	0.75 to 1.05

Fuel systemF80 & Fourtrak1984 to 1992

Idle speed - manual [auto]	rpm	650±50 (PAS: 750±50)
Fast idle speed - manual [auto]	rpm	2600±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		Aisan
Type / ref		2V
Main jet / needle		105, 160
Injection pressure	bar	—
Pump pressure	bar	—
Octane rating	RON	91[E 95 RON]

Ignition systemF80 & Fourtrak1984 to 1992

Type		Contact breaker - CIS
Ignition coil		—
Primary resistance	ohms	0.80 to 0.98
Ballast resistor	ohms	1.7 to 2.1
Voltage - Tmnl 15(+) to earth	V	—
Distributor		Toyo Denso
Points gap (air gap)	mm	0.45
Dwell angle	° (%)	52±6
Condenser capacity	µF	0.27
Rotation		Clockwise
Ignition timing - basic [static V = Vacuum NV = No Vacuum	° Crankshaft @ rpm	8±2 BTDC @ 850
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	0 @ 1800
	° Crankshaft @ rpm	5 @ 2100
	° Crankshaft @ rpm	17 to 21 @ 3900
Vacuum range check	mbar	133 to 333
Maximum vacuum advance	° Crankshaft	17 to 21
Spark plugs		NGK/Champion
Type		BPR5EY / RN9YC
Electrode gap	mm	0.80

Electrical systemF80 & Fourtrak1984 to 1992

Battery	V / CC / RC	12 / 40Ah
Alternator voltage / full load current / engine rpm		13.8 to 14.8 / _ / 3000
Starter motor current / voltage - cranking	A / V	90 / 11.5 (no load)
- locked	A / V	—

Running gearF80 & Fourtrak1984 to 1992

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

Tyres		
Saloon	Size	—
Estate / Van	Size	215x15
Pressure - front / rear - Saloon	bar	—
- Estate / Van	bar	1.2 / 1.7

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	0±3.0
Camber		+1°±1°
Castor		+1°30'±1°
King pin inclination		+9°30'±1°

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

Torque wrench settingsF80 & Fourtrak1984 to 1992

Cylinder head - stage 1	Nm	12mm bolt: 19
- stage 2	Nm	14mm bolt: 88
Cylinder head - stage 3	Nm	—
- stage 4	Nm	—
Big-end bearings	Nm	49
Main bearings	Nm	78
Clutch cover	Nm	19
Flywheel [driveplate]	Nm	83
Front hubs	Nm	WSM
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	88 to 118
Spark plugs	Nm	18

CapacitiesF80 & Fourtrak1984 to 1992

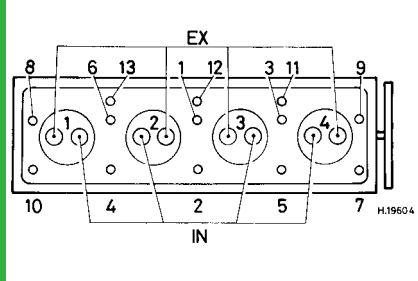
Engine oil & filter	litres	4.0
Gearbox - 4-speed [5-speed]	litres	2.8 ¹
Automatic transmission - refill	litres	—
Final drive	litres	1.5
Cooling system	litres	7.9 ²
Fuel tank	litres	60

Notes and Illustrations

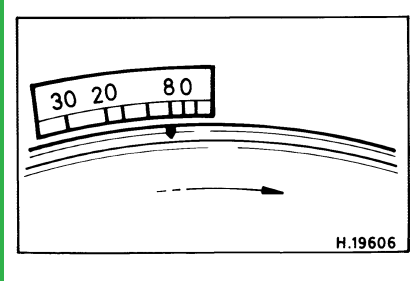
¹Transfer box: 1.3

²With rear heater: 9.0

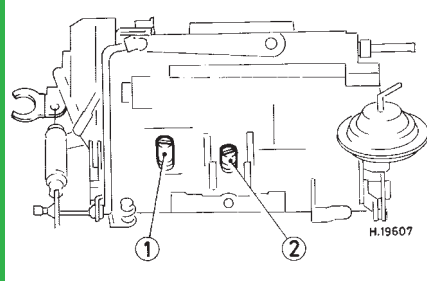
1: Idle speed 2: CO / Mixture



1998 cm³



1998 cm³



Aisan 2V, 1998 cm³