

Engine & Cooling	Fuel	Ignition	Electrical	Running gear	Torque settings	Capacities	Notes & Illustrations
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Automotive Technical DATA BOOK

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HELP

Engine and cooling system Starlet (EP70) 1985 to 1989

Type		1E-L
Capacity (cm ³) / number of cylinders		999 / 4
Compression ratio / pressure	bar	9.0 / ≥9.8
Oil pressure	bar	[2.5 to 4.9]
Oil temperature	°C	80
Valve clearance - inlet	mm	0.20 H
- exhaust	mm	0.20 H
Firing order		1-3-4-2
No 1 cylinder position		TBE
Thermostat opening temperature	°C	80 to 84
Radiator cap pressure	bar	0.75 to 1.00

Fuel system Starlet (EP70) 1985 to 1989

Idle speed - manual [auto]	rpm	800±50 [850±50]
Fast idle speed - manual [auto]	rpm	4800±200
CO @ idle speed [3000 rpm] - see page VI	%	2.0±0.5
HC @ idle speed [3000 rpm] - see page VI	ppm	≤1200
CO ₂ @ idle speed [3000 rpm] - see page VI	%	-
O ₂ @ idle speed [3000 rpm] - see page VI	%	-
Carburettor / fuel injection		Aisan
Type / ref		K type 2V. 21100-10050
Main jet / needle		96, 153
Injection pressure	bar	-
Pump pressure	bar	-
Octane rating	RON	91[E 91 RON]

Ignition system Starlet (EP70) 1985 to 1989

Type		Contact breaker - CIS ¹
Ignition coil		-
Primary resistance	ohms	1.3 to 1.6 [1.2 to 1.5 elect]
Ballast resistor	ohms	C/b: 1.3 to 1.5
Voltage - Tmnl 15(+) to earth	V	-
Distributor		-
Points gap (air gap)	mm	0.45 [≥0.20]
Dwell angle	° (%)	C/b: 52±6
Condenser capacity	µF	-
Rotation		Clockwise
Ignition timing - basic [static	° Crankshaft @ rpm	5 BTDC @ 950
V = Vacuum NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	-
	° Crankshaft @ rpm	-
	° Crankshaft @ rpm	-
Centrifugal check.	° Crankshaft @ rpm	0.5 to 4.5 @ 1600
	° Crankshaft @ rpm	18 to 22 @ 4000
	° Crankshaft @ rpm	23 to 27 @ 6000
Vacuum range check	mbar	133 to 573 ²
Maximum vacuum advance	° Crankshaft	28 to 32 ²
Spark plugs		NGK/Champion
Type		BPR6EY / RN9YC4
Electrode gap	mm	1.00. NGK: 0.80

Electrical system Starlet (EP70) 1985 to 1989

Battery	V / CC / RC	12 / 40Ah
Alternator voltage / full load current / engine rpm		13.5 to 15.1 / _ / 3000
Starter motor current / voltage - cranking	A / V	50 / 11 (no load)
- locked	A / V	-

Running gear Starlet (EP70) 1985 to 1989

Brakes -		
Front (min. friction material thickness)	mm	1.0
Rear (min. friction material thickness)	mm	1.0
Tyres		
Saloon	Size	145x13: 155x13: 165/70x13
Estate / Van	Size	-
Pressure - front / rear - Saloon	bar	145: 2.0 / 2.0 ³
- Estate / Van	bar	-
Front suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	0±1.0
Camber		0±30'
Castor		+50'±30'
King pin inclination		+11°30'±30'
Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	+3.0±4.0
Camber		-

Torque wrench settings Starlet (EP70) 1985 to 1989

Cylinder head - stage 1	Nm	29
- stage 2	Nm	49
- stage 3	Nm	+ 90°
- stage 4	Nm	-
Big-end bearings	Nm	39
Main bearings	Nm	57
Clutch cover	Nm	19
Flywheel [driveplate]	Nm	83
Front hubs	Nm	186 ⁴
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	103
Spark plugs	Nm	18

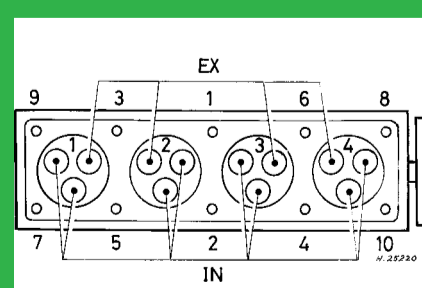
Capacities Starlet (EP70) 1985 to 1989

Engine oil & filter	litres	3.2
Gearbox - 4-speed [5-speed]	litres	2.4
Automatic transmission - refill	litres	2.2
Final drive	litres	AT: 1.4
Cooling system	litres	4.6 [AT: 4.5]
Fuel tank	litres	40

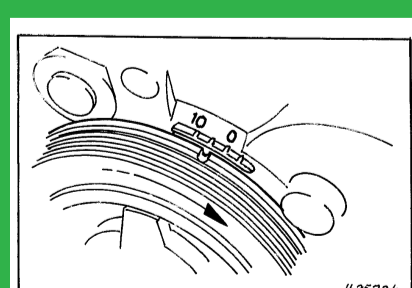
Notes and Illustrations

- ¹Electronic may be fitted
- ²Except distributor 19100-10030: 133 to 427 @ 18 to 22
- ³Other tyres: 1.8 / 1.8
- ⁴If noisy, retighten to 273

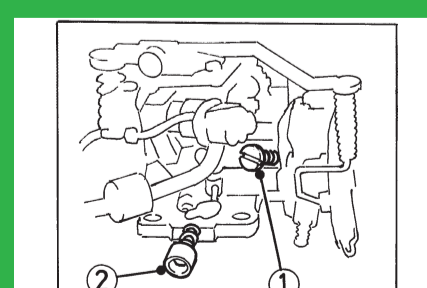
1: Idle speed 2: CO / Mixture



999 cm³



999 cm³



Aisan K type