

TOYOTA

Starlet (EP80)

1990 to 1993

Engine & Cooling

Fuel

Ignition

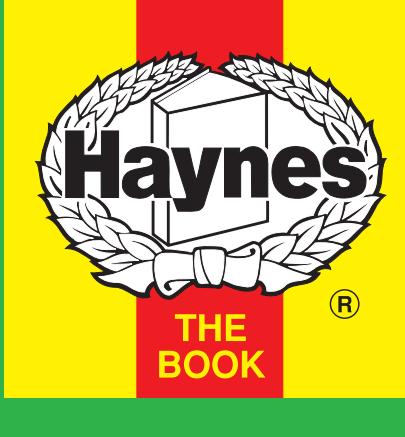
Electrical

Running gear

Torque settings

Capacities

Notes & Illustrations



Automotive Technical
DATA BOOK

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HELP

Engine and cooling system

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Type		1E-L SOHC 12V
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

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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	%	1.5 to 2.5
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		K type 2V. 21100-10092
Main jet / needle		96, 153
Injection pressure	bar	—
Pump pressure	bar	—
Octane rating	RON	91[E 91 RON]

Ignition system

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Type		Electronic
Ignition coil		—
Primary resistance	ohms	1.3 to 1.5
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	—
Distributor		—
Points gap (air gap)	mm	[0.20 to 0.40]
Dwell angle	° (%)	—
Condenser capacity	µF	—
Rotation		Clockwise
Ignition timing - basic [static	° Crankshaft @ rpm	10 BTDC @ 950
V = Vacuum NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	0.4 to 4.4 @ 1600 ¹
	° Crankshaft @ rpm	18 to 22 @ 4000 ¹
	° Crankshaft @ rpm	23 to 27 @ 5200 ¹
Vacuum range check	mbar	133 to 400 ²
Maximum vacuum advance	° Crankshaft	14 to 18 ³
Spark plugs		NGK/Champion
Type		BPR6EY / RN9YCC
Electrode gap	mm	0.80

Electrical system

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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

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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	2.0 / 2.0 ⁴
- Estate / Van	bar	—

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	+1.0±1.0 ⁵
Camber		-15'±30'. 92 ►: -15'±45'
Castor		+1°25'±30'. 92 ►: +1°25'±45'
King pin inclination		+12°±30'. 92 ►: +12°±45'

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

Torque wrench settings

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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 [88]
Front hubs	Nm	226
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	103
Spark plugs	Nm	18

Capacities

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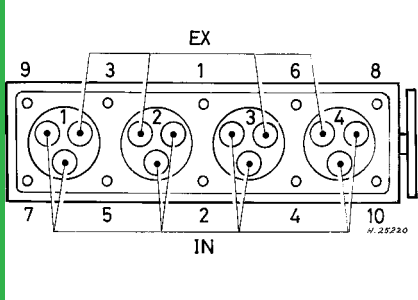
1990 to 1993

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	4.2
Fuel tank	litres	40

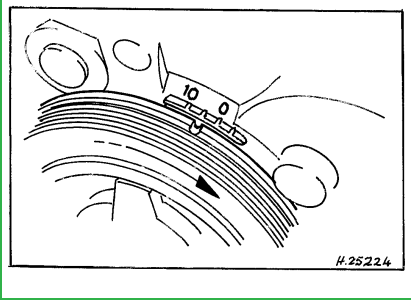
Notes and Illustrations

- ¹Distributor no. 19100-10021: 0.2 to 4.2 @ 1700, 11 to 15 @ 3500, 18 to 22 @ 6000
- ²Distributor no. 19100-10021 or 10030: 132 to 427
- ³Distributor no. 19100-10021 or 10030: 18 to 22
- ⁴155x13: 1.8 / 1.8. 165/70x13: 1.9 / 1.9
- ⁵92 ►: +1.0±2.0

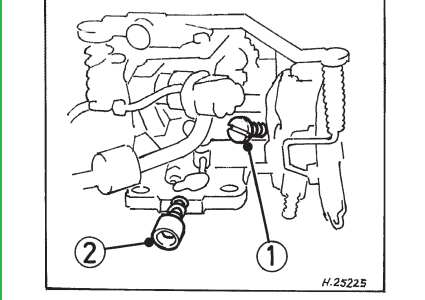
1: Idle speed 2: CO / Mixture



999 cm³



999 cm³



Aisan K type