

TOYOTA

Corolla 1.3 (EE90)

1987 to 1990

Engine & Cooling

Fuel

Ignition

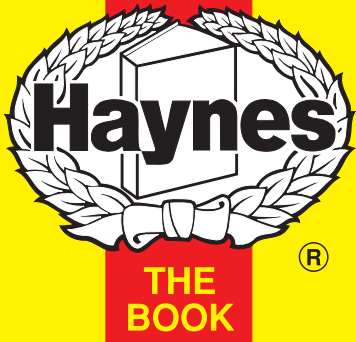
Electrical

Running gear

Torque settings

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Notes & Illustrations



Automotive Technical
DATA BOOK

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Engine and cooling system

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Type		2E (OHC)
Capacity (cm ³) / number of cylinders		1295 / 4
Compression ratio / pressure	bar	9.5 / ≥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	0.74 to 1.03

Fuel system

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Idle speed - manual [auto]	rpm	800±50 [850±50]
Fast idle speed - manual [auto]	rpm	3600±200
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		VV type (Variable choke)
Main jet / needle		—
Injection pressure	bar	—
Pump pressure	bar	—
Octane rating	RON	91[E 91 RON]

Ignition system

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Type		Electronic
Ignition coil		IIA
Primary resistance	ohms	1.3 to 1.5
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	—
Distributor		Toyo Denso
Points gap (air gap)	mm	[0.20 to 0.40]
Dwell angle	° (%)	—
Condenser capacity	µF	—
Rotation		Anticlockwise
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	0.6 to 3.6 @ 1500
	° Crankshaft @ rpm	8.4 to 11.4 @ 2500
	° Crankshaft @ rpm	24.8 to 28.8 @ 6000
Vacuum range check	mbar	133 to 573
Maximum vacuum advance	° Crankshaft	28 to 32
Spark plugs		NGK/Champion
Type		BPR6EY11 / RN9YC4
Electrode gap	mm	1.10

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	155x13
Estate / Van	Size	155x13
Pressure - front / rear - Saloon	bar	1.9 / 1.9
- Estate / Van	bar	1.9 / 1.9

Front suspension / wheel alignment

Toe-in (+) / Toe-out (–)	mm [°]	+1.0±1.0
Camber		-10'±45'
Castor		+1°20'±45'
King pin inclination		+12°40'±45'

Rear suspension / wheel alignment

Toe-in (+) / Toe-out (–)	mm [°]	+4.0±1.0 ¹
Camber		-35'±45'. Estate: -30'±45'

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 [64]
Front hubs	Nm	186 ²
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	103
Spark plugs	Nm	18

Capacities

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Engine oil & filter	litres	3.2
Gearbox - 4-speed [5-speed]	litres	2.4
Automatic transmission - refill	litres	2.5
Final drive	litres	AT: 1.4
Cooling system	litres	4.9 [4.8]
Fuel tank	litres	50

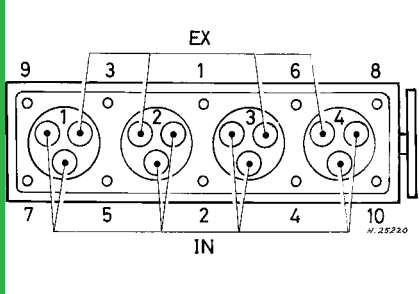
Notes and Illustrations

¹Estate: +4.0±2.0, N/A

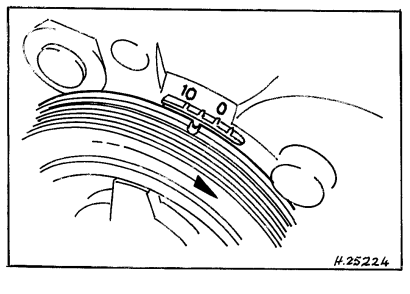
²If noisy, retighten to 273

1: Idle speed

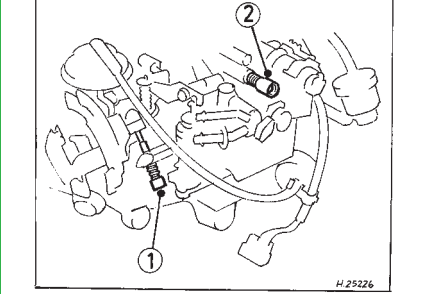
2: CO / Mixture



1295 cm³, 12V



1295 cm³



Aisan VV