

TOYOTA

Hi-Ace 2.0 (YH61)

1984 to 1989

Engine & Cooling

Fuel

Ignition

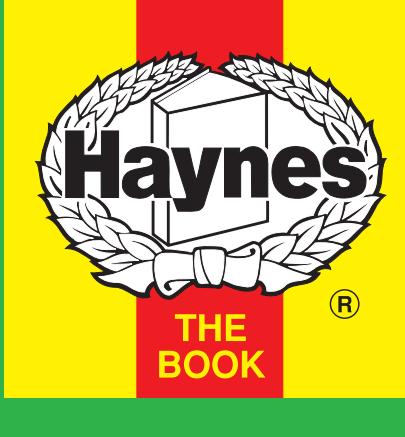
Electrical

Running gear

Torque settings

Capacities

Notes & Illustrations



Automotive Technical
DATA BOOK

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HELP

Engine and cooling system

Hi-Ace 2.0 (YH61)

1984 to 1989

Type		3Y
Capacity (cm ³) / number of cylinders		1998 / 4
Compression ratio / pressure	bar	8.8 / ≥8.8
Oil pressure	bar	[2.5 to 4.9]
Oil temperature	°C	—
Valve clearance - inlet	mm	0: Hyd.
- 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	0.70 to 1.00

Fuel system

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1984 to 1989

Idle speed - manual [auto]	rpm	650±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		—
Injection pressure	bar	—
Pump pressure	bar	—
Octane rating	RON	91[E 95 RON]

Ignition system

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1984 to 1989

Type		Electronic
Ignition coil		—
Primary resistance	ohms	1.3 to 1.6
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		—
Ignition timing - basic [static	° Crankshaft @ rpm	8 BTDC @ 850
V = Vacuum NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	0 @ 1400
	° Crankshaft @ rpm	5 @ 2100
	° Crankshaft @ rpm	19 @ 3900
Vacuum range check	mbar	105 to 440
Maximum vacuum advance	° Crankshaft	17 to 21
Spark plugs		NGK/Champion
Type		BPR5EY / RN9YC
Electrode gap	mm	0.80

Electrical system

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1984 to 1989

Battery	V / CC / RC	12 / 60Ah
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 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	—
Estate / Van	Size	185x14
Pressure - front / rear - Saloon	bar	—
- Estate / Van	bar	Refer to owner's handbook

Front suspension / wheel alignment

Toe-in (+) / Toe-out (–)	mm [°]	0±2.0
Camber		+30'±30'
Castor		+2°±30'
King pin inclination		+10°±30'

Rear suspension / wheel alignment

Toe-in (+) / Toe-out (–)	mm [°]	—
Camber		—

Torque wrench settings

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Cylinder head - stage 1	Nm	12mm bolt: 19
- stage 2	Nm	14mm bolt: 88
- 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	—
Wheel nuts / bolts	Nm	103
Spark plugs	Nm	18

Capacities

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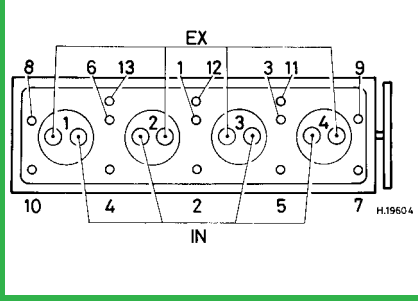
1984 to 1989

Engine oil & filter	litres	3.5
Gearbox - 4-speed [5-speed]	litres	2.0 [1.8]
Automatic transmission - refill	litres	—
Final drive	litres	2.2
Cooling system	litres	9.1
Fuel tank	litres	60

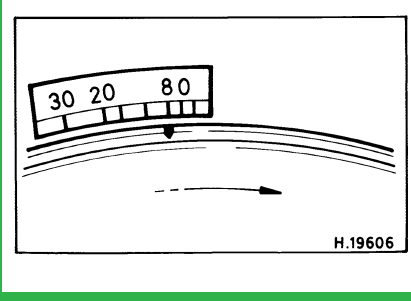
Notes and Illustrations

1: Idle speed

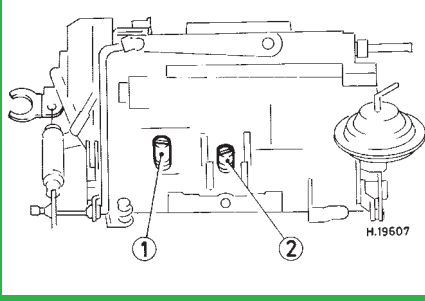
2: CO / Mixture



1998 cm³, 3Y



1998 cm³, 3Y



Aisan 2V