

Engine & Cooling	Fuel	Ignition	Electrical	Running gear	Torque settings	Capacities	Notes & Illustrations
------------------	------	----------	------------	--------------	-----------------	------------	-----------------------



# Automotive Technical DATA BOOK

Click on one of the buttons above to view data for this car. To return to this screen and make another choice, click anywhere on the data screen.

MENU

HELP

## Engine and cooling system Hi-Ace 2.4i 1994 to 1996

Type	2RZ-E SOHC 8V 86kW	
Capacity (cm <sup>3</sup> ) / number of cylinders	2438 / 4	
Compression ratio / pressure	bar	8.8 / 12.5
Oil pressure	bar	[2.5 to 5.0]
Oil temperature	°C	80
Valve clearance - inlet	mm	0.25
- exhaust	mm	0.30
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 1.0

## Fuel system Hi-Ace 2.4i 1994 to 1996

Idle speed - manual [auto]	rpm	800±50
Fast idle speed - manual [auto]	rpm	—
CO @ idle speed [3000 rpm] - see page VI	%	≤0.5
HC @ idle speed [3000 rpm] - see page VI	ppm	≤200
CO <sub>2</sub> @ idle speed [3000 rpm] - see page VI	%	—
O <sub>2</sub> @ idle speed [3000 rpm] - see page VI	%	—
Carburettor / fuel injection	_Toyota	
Type / ref	MPI	
Main jet / needle	—	
Injection pressure	bar	2.7 to 3.1
Pump pressure	bar	—
Octane rating	RON	95[U]

## Ignition system Hi-Ace 2.4i 1994 to 1996

Type	Electronic	
Ignition coil	—	
Primary resistance	ohms	0.4 to 0.5
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	—
Distributor	—	
Points gap (air gap)	mm	—
Dwell angle	° (%)	—
Condenser capacity	µF	—
Rotation	—	
Ignition timing - basic [static	° Crankshaft @ rpm	WSM
V = Vacuum NV = No Vacuum	—	
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Vacuum range check	mbar	—
Maximum vacuum advance	° Crankshaft	—
Spark plugs	NGK/Nippon Denso	
Type	BPR5EP11 / P16R	
Electrode gap	mm	1.1

## Electrical system Hi-Ace 2.4i 1994 to 1996

Battery	V / CC / RC	12 / 60Ah
Alternator voltage / full load current / engine rpm	13.9 to 15.1 / 60A	
Starter motor current / voltage - cranking	A / V	—
- locked	A / V	—

## Running gear Hi-Ace 2.4i 1994 to 1996

<b>Brakes -</b>		
Front (min. friction material thickness)	mm	—
Rear (min. friction material thickness)	mm	—

<b>Tyres</b>		
Saloon	Size	—
Estate / Van	Size	195/70x15
Pressure - front / rear - Saloon	bar	—
- Estate / Van	bar	2.8 / 4.5

<b>Front suspension / wheel alignment</b>		
Toe-in (+) / Toe-out (-)	mm [°]	3.0±2.0
Camber	25'±45'	
Castor	1°5'±45'	
King pin inclination	10°55'±45'	

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

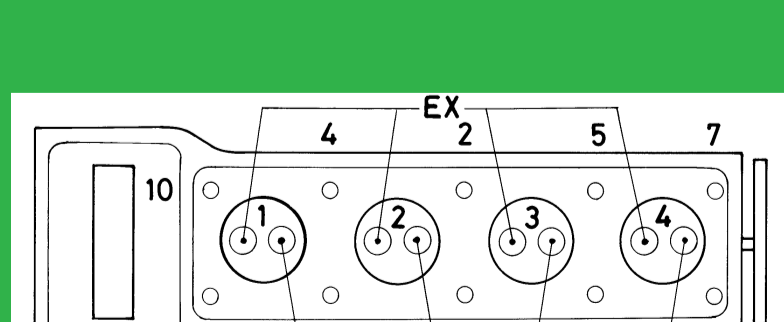
## Torque wrench settings Hi-Ace 2.4i 1994 to 1996

Cylinder head - stage 1	Nm	44
- stage 2	Nm	+90°
- stage 3	Nm	+90°
- stage 4	Nm	—
Big-end bearings	Nm	29 +90°
Main bearings	Nm	44 +90°
Clutch cover	Nm	19
Flywheel [driveplate]	Nm	88
Front hubs	Nm	WSM
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	—
Spark plugs	Nm	18

## Capacities Hi-Ace 2.4i 1994 to 1996

Engine oil & filter	litres	4.1
Gearbox - 4-speed [5-speed]	litres	2.4
Automatic transmission - refill	litres	—
Final drive	litres	1.8
Cooling system	litres	9.0
Fuel tank	litres	70

## Notes and Illustrations

2438 cm<sup>3</sup>