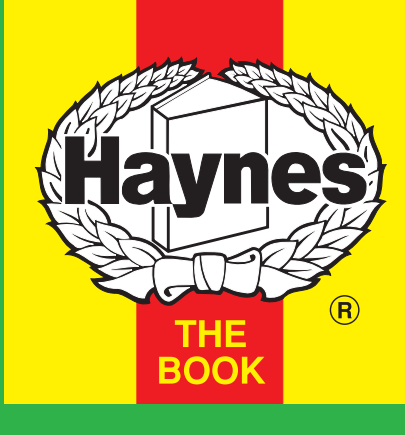




Automotive Technical

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

MR2 (AW 11)

1984 to 1990

Type		4A-GEL (DOHC 16V)
Capacity (cm³) / number of cylinders		1587 / 4
Compression ratio / pressure	bar	10.0 / ≥8.8
Oil pressure	bar	0.6 [2.9]
Oil temperature	°C	80
Valve clearance - inlet	mm	0.15 to 0.25
- exhaust	mm	0.20 to 0.30
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

MR2 (AW 11)

1984 to 1990

Idle speed - manual [auto]	rpm	800±50
Fast idle speed - manual [auto]	rpm	—
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		Toyota
Type / ref		Electronic
Main jet / needle		—
Injection pressure	bar	—
Pump pressure	bar	2.3 to 2.8
Octane rating	RON	98[E 95 RON]

Ignition system

MR2 (AW 11)

1984 to 1990

Type		Computerized
Ignition coil		—
Primary resistance	ohms	0.5 to 0.7
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		—
Ignition timing - basic [static	° Crankshaft @ rpm	10±1 BTDC @ 800
V = Vacuum NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	Computer control
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Vacuum range check	mbar	Computer control
Maximum vacuum advance	° Crankshaft	—
Spark plugs		NGK/Champion
Type		BCPR6EY / RC7YC4
Electrode gap	mm	1.0

Electrical system

MR2 (AW 11)

1984 to 1990

Battery	V / CC / RC	12 / 50Ah
Alternator voltage / full load current / engine rpm		13.5 to 15.1 / _ / 3000
Starter motor current / voltage - cranking	A / V	90 / 11.5 (no load)
- locked	A / V	—

Running gear

MR2 (AW 11)

1984 to 1990

Brakes -		
Front (min. friction material thickness)	mm	1.0
Rear (min. friction material thickness)	mm	1.0

Tyres		
Saloon	Size	185/60x14
Estate / Van	Size	—
Pressure - front / rear - Saloon	bar	1.8 / 1.8
- Estate / Van	bar	—

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	+1.0±1.0
Camber		+15'±30'
Castor		+5°20'±30'
King pin inclination		+12°±45'

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	+5.0±1.0
Camber		-45'±30'

Torque wrench settings

MR2 (AW 11)

1984 to 1990

Cylinder head - stage 1	Nm	14
- stage 2	Nm	49
- stage 3	Nm	55 to 64
- stage 4	Nm	—
Big-end bearings	Nm	45 to 52¹
Main bearings	Nm	55 to 64
Clutch cover	Nm	19
Flywheel [driveplate]	Nm	69 to 78
Front hubs	Nm	186
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	103
Spark plugs	Nm	15 to 20

Capacities

MR2 (AW 11)

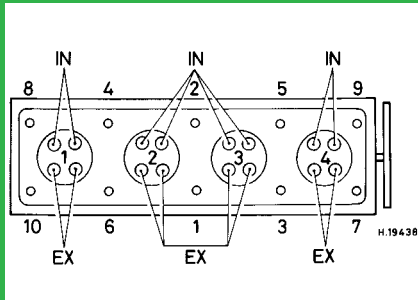
1984 to 1990

Engine oil & filter	litres	3.7
Gearbox - 4-speed [5-speed]	litres	2.3
Automatic transmission - refill	litres	—
Final drive	litres	WT
Cooling system	litres	5.6
Fuel tank	litres	41

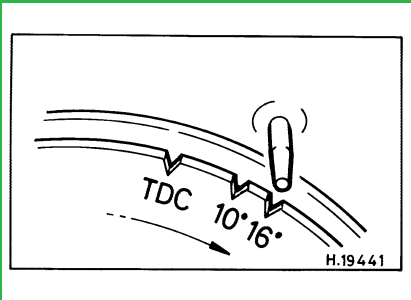
Notes and Illustrations

¹08.87 ►: hex head: 49. 12 sided: 39 + 90°

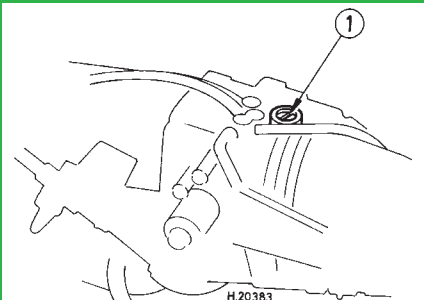
1: Idle speed 2: CO / Mixture



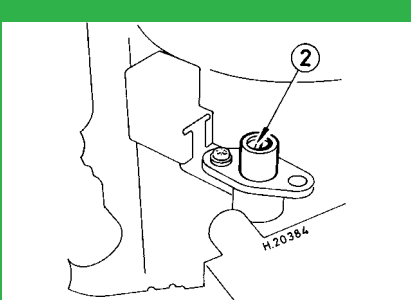
1587 cm³



1587 cm³



Fuel injection, 4A-GEL



Fuel injection, 4A-GEL