

Engine & Cooling

Fuel

Ignition

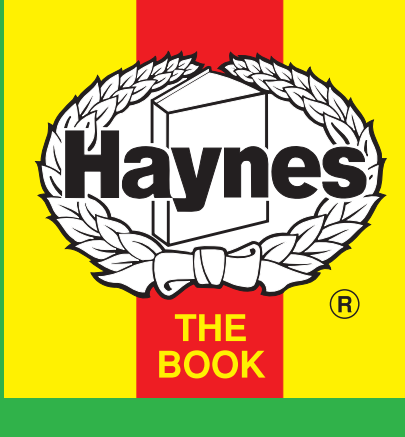
Electrical

Running gear

Torque settings

Capacities

Notes & Illustrations



Automotive Technical
DATA BOOK

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HELP

Engine and cooling systemSonata 2.01989 to 1992

Type		4G63 SOHC
Capacity (cm³) / number of cylinders		1997 / 4
Compression ratio / pressure	bar	8.6 / _
Oil pressure	bar	—
Oil temperature	°C	—
Valve clearance - inlet	mm	0: Hyd.
Valve clearance - exhaust	mm	0: Hyd.
Firing order		1-3-4-2
No 1 cylinder position		TBE
Thermostat opening temperature	°C	88
Radiator cap pressure	bar	0.76 to 1.04

Fuel systemSonata 2.01989 to 1992

Idle speed - manual [auto]	rpm	750±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		Hyundai
Type / ref		MPI
Main jet / needle		—
Injection pressure	bar	—
Pump pressure	bar	3.2 to 3.4
Octane rating	RON	95[E 95 RON]

Ignition systemSonata 2.01989 to 1992

Type		Computerized
Ignition coil		—
Primary resistance	ohms	0.80±0.08
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	—
Distributor		—
Points gap (air gap)	mm	—
Dwell angle	° (%)	—
Condenser capacity	µF	—
Rotation		Clockwise
Ignition timing - basic [static	° Crankshaft @ rpm	5±1 BTDC @ 750
V = Vacuum NV = No Vacuum		—
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		BPR6ES-11 / RN9YC4
Electrode gap	mm	1.00 to 1.10

Electrical systemSonata 2.01989 to 1992

Battery	V / CC / RC	12 / 60Ah
Alternator voltage / full load current / engine rpm		14.1 to 14.7 / _ / 3000
Starter motor current / voltage - cranking	A / V	—
- locked	A / V	—

Running gearSonata 2.01989 to 1992

Brakes -		
Front (min. friction material thickness)	mm	2.0
Rear (min. friction material thickness)	mm	1.5

Tyres		
Saloon	Size	185/70x14
Estate / Van	Size	—
Pressure - front / rear - Saloon	bar	2.0 / 2.0
- Estate / Van	bar	—

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	0±3.0
Camber		+30'±30'
Castor		+2°±30'
King pin inclination		+13°25'

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	0
Camber		0

Torque wrench settingsSonata 2.01989 to 1992

Cylinder head - stage 1	Nm	35
- stage 2	Nm	90 to 100 C
Cylinder head - stage 3	Nm	100 to 110 H
- stage 4	Nm	—
Big-end bearings	Nm	45 to 47
Main bearings	Nm	49 to 53
Clutch cover	Nm	15 to 22
Flywheel [driveplate]	Nm	130 to 140
Front hubs	Nm	196 to 255
Rear hubs	Nm	—
Wheel nuts / bolts	Nm	88 to 108
Spark plugs	Nm	20 to 30

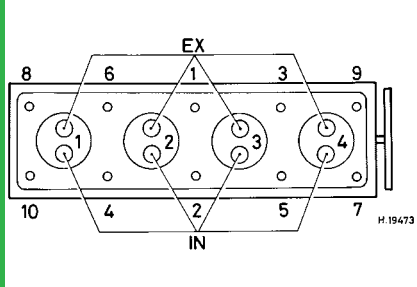
CapacitiesSonata 2.01989 to 1992

Engine oil & filter	litres	4.0
Gearbox - 4-speed [5-speed]	litres	2.5
Automatic transmission - refill	litres	5.8
Final drive	litres	WT
Cooling system	litres	7.0
Fuel tank	litres	60

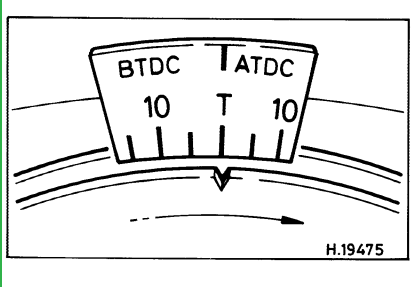
Notes and Illustrations



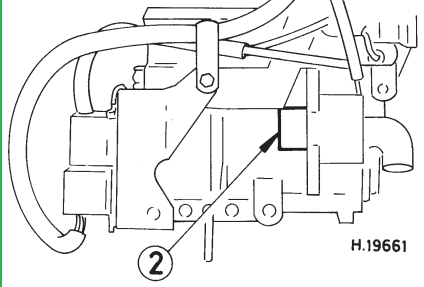
1: Idle speed 2: CO / Mixture



1997 cm³, 8V



1997 cm³, 8V



MPI, 1997 cm³