

Engine & Cooling	Fuel	Ignition	Electrical	Running gear	Torque settings	Capacities	Notes & Illustrations
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## Automotive Technical DATA BOOK

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### Engine and cooling system Voyager 3.3i 1991 to 1997

Type		OHV 12V 116kW
Capacity (cm <sup>3</sup> ) / number of cylinders		3301 / 6
Compression ratio / pressure	bar	8.9 / ≥6.9
Oil pressure	bar	0.35 [2.1 to 5.5]
Oil temperature	°C	85
Valve clearance - inlet	mm	0: Hyd.
Valve clearance - exhaust	mm	0: Hyd.
Firing order		1-2-3-4-5-6
No 1 cylinder position		–
Thermostat opening temperature	°C	88 to 93
Radiator cap pressure	bar	0.98 to 1.20

### Fuel system Voyager 3.3i 1991 to 1997

Idle speed - manual [auto]	rpm	Refer to vehicle
Fast idle speed - manual [auto]	rpm	–
CO @ idle speed [3000 rpm] - see page VI	%	≤0.5 N/A
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		–
Type / ref		PCM MPI
Main jet / needle		–
Injection pressure	bar	3.3
Pump pressure	bar	–
Octane rating	RON	91[U]

### Ignition system Voyager 3.3i 1991 to 1997

Type		Direct electronic
Ignition coil		Diamond. ToyoDenso
Primary resistance	ohms	0.45 to 0.65
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	Refer to vehicle N/A
V = Vacuum    NV = No Vacuum		–
Total ignition advance	° Crankshaft @ rpm	Computer control
	° 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		_/Champion
Type		RN14MC5
Electrode gap	mm	1.20 to 1.30

### Electrical system Voyager 3.3i 1991 to 1997

Battery	V / CC / RC	–
Alternator voltage / full load current / engine rpm		12 / 90, 120 / –
Starter motor current / voltage - cranking	A / V	–
- locked	A / V	–

### Running gear Voyager 3.3i 1991 to 1997

<b>Brakes -</b>		
Front (min. friction material thickness)	mm	–
Rear (min. friction material thickness)	mm	–
<b>Tyres</b>		
Saloon	Size	215/65x15
Estate / Van	Size	–
Pressure - front / rear - Saloon	bar	–
- Estate / Van	bar	–
<b>Front suspension / wheel alignment</b>		
Toe-in (+) / Toe-out (-)	mm [°]	[-0.2° to 0.4°]
Camber		-0.2° to 0.8°
Castor		1.3°
King pin inclination		–
<b>Rear suspension / wheel alignment</b>		
Toe-in (+) / Toe-out (-)	mm [°]	-0.6° to 0.6°
Camber		-0.8° to 0.4°

### Torque wrench settings Voyager 3.3i 1991 to 1997

Cylinder head - stage 1	Nm	61
- stage 2	Nm	88
Cylinder head - stage 3	Nm	88
- stage 4	Nm	+ 90°
Big-end bearings	Nm	54 + 90°
Main bearings	Nm	41 + 90°
Clutch cover	Nm	–
Flywheel [driveplate]	Nm	–
Front hubs	Nm	245
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	129
Spark plugs	Nm	28

### Capacities Voyager 3.3i 1991 to 1997

Engine oil & filter	litres	4.3
Gearbox - 4-speed [5-speed]	litres	–
Automatic transmission - refill	litres	3.8
Final drive	litres	WT
Cooling system	litres	9.5
Fuel tank	litres	75.6

### Notes and Illustrations

