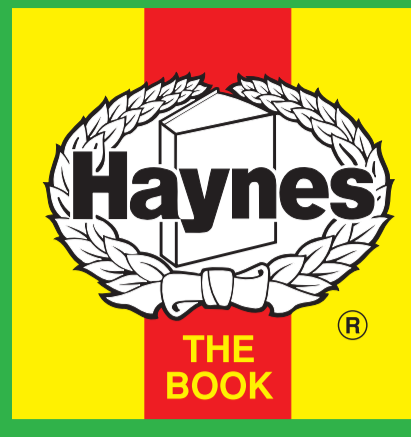


Engine & Cooling	Fuel	Ignition	Electrical	Running gear	Torque settings	Capacities	Notes & Illustrations
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Automotive Technical DATA BOOK

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 Tempra 1.6ie CAT 1991 to 1994

Type	159 A3.046 SOHC 57kW US83	
Capacity (cm ³) / number of cylinders	1581 / 4	
Compression ratio / pressure	bar	9.2+0.1-0.2 / _
Oil pressure	bar	1.5 [4.6]
Oil temperature	°C	100
Valve clearance - inlet	mm	0.40±0.05
Valve clearance - exhaust	mm	0.50±0.05
Firing order	1-3-4-2	
No 1 cylinder position	TBE	
Thermostat opening temperature	°C	85 to 89
Radiator cap pressure	bar	0.98

Fuel system Tempra 1.6ie CAT 1991 to 1994

Idle speed - manual [auto]	rpm	800 to 850
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	0.4 to 1.0. Ex: ≤0.5 N/A
HC @ idle speed [3000 rpm] - see page VI	ppm	≤500. Ex: ≤100
CO ₂ @ idle speed [3000 rpm] - see page VI	%	_
O ₂ @ idle speed [3000 rpm] - see page VI	%	_
Carburettor / fuel injection	Bosch ¹	
Type / ref	SPI Mono-Jetronic	
Main jet / needle	_	
Injection pressure	bar	_
Pump pressure	bar	_
Octane rating	RON	95[U]

Ignition system Tempra 1.6ie CAT 1991 to 1994

Type	Digiplex 2-Static ¹	
Ignition coil	Marelli BAE 504D	
Primary resistance	ohms	0.405 to 0.495
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	_
Distributor	Marelli	
Points gap (air gap)	mm	_
Dwell angle	° (%)	_
Condenser capacity	µF	_
Rotation	_	
Ignition timing - basic [static	° Crankshaft @ rpm	4±2 BTDC @ 600 to 1000 N/A
V = Vacuum NV = No Vacuum	_	
Total ignition advance	° Crankshaft @ rpm	44±2 BTDC @ ≤5000
° 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	RN9YCC	
Electrode gap	mm	0.85 to 0.95

Electrical system Tempra 1.6ie CAT 1991 to 1994

Battery	V / CC / RC	12 / 255 / 55Ah
Alternator voltage / full load current / engine rpm	14.0 to 14.6 / 65 / 3500	
Starter motor current / voltage - cranking	A / V	200 / 9.8 to 10.0
- locked	A / V	440 / 7.6

Running gear Tempra 1.6ie CAT 1991 to 1994

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

Tyres		
Saloon	Size	165/70x13:165/65x14:185/60x14
Estate / Van	Size	175\65x14: 185/60x14
Pressure - front / rear - Saloon	bar	2.0 / 2.0 ¹
- Estate / Van	bar	2.2 / 2.2

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	-1.0 to +1.0
Camber	-20' to +40' N/A	
Castor	+1°10' to 2°10' N/A ²	
King pin inclination	_	

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	-3.0 to +1.0
Camber	-30' to -1°30' N/A	

Torque wrench settings Tempra 1.6ie CAT 1991 to 1994

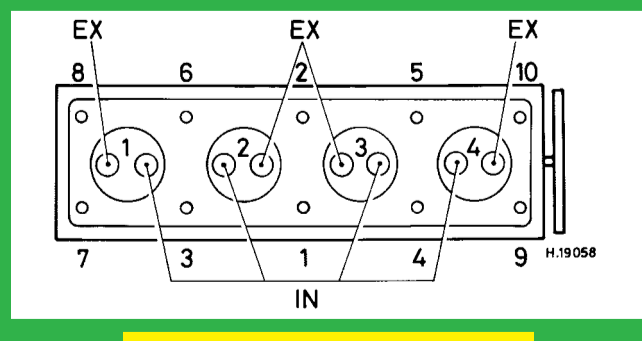
Cylinder head - stage 1	Nm	20
- stage 2	Nm	40
Cylinder head - stage 3	Nm	+ 90°
- stage 4	Nm	+ 90°
Big-end bearings	Nm	51
Main bearings	Nm	80
Clutch cover	Nm	38
Flywheel [driveplate]	Nm	83
Front hubs	Nm	235
Rear hubs	Nm	284
Wheel nuts / bolts	Nm	86
Spark plugs	Nm	25 to 30

Capacities Tempra 1.6ie CAT 1991 to 1994

Engine oil & filter	litres	3.7
Gearbox - 4-speed [5-speed]	litres	2.0
Automatic transmission - refill	litres	3.5
Final drive	litres	WT
Cooling system	litres	6.3
Fuel tank	litres	62

Notes and Illustrations

¹93 ►: Bosch MA1.7-Mono-Motronic
²185/60x14: 2.2 / 2.4
³PAS 4D: +2°10' to 3°10'. 5D: +50' to 1°50'



1581 cm³