

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

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HELP

## Engine and cooling system 309, 1.6i CAT 1991

Type		XU5M2Z (BDY) (65kW)
Capacity (cm <sup>3</sup> ) / number of cylinders		1580 / 4
Compression ratio / pressure	bar	9.26 / _
Oil pressure	bar	1.4 [3.5]
Oil temperature	°C	80
Valve clearance - inlet	mm	0.20
Valve clearance - exhaust	mm	0.40
Firing order		1-3-4-2
No 1 cylinder position		FE
Thermostat opening temperature	°C	82
Radiator cap pressure	bar	1.0

## Fuel system 309, 1.6i CAT 1991

Idle speed - manual [auto]	rpm	850±50
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	≤0.3 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		Magneti-Marelli
Type / ref		MMFD Monopoint G5
Main jet / needle		_
Injection pressure	bar	0.70 to 0.90
Pump pressure	bar	_
Octane rating	RON	95[U]

## Ignition system 309, 1.6i CAT 1991

Type		Distributorless
Ignition coil		2x Bosch. Valeo
Primary resistance	ohms	2x0.8
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	_
Distributor		_
Points gap (air gap)	mm	_
Dwell angle	° (%)	_
Condenser capacity	µF	_
Rotation		Anticlockwise
Ignition timing - basic [static	° Crankshaft @ rpm	Computer control 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		C7YCC
Electrode gap	mm	0.80

## Electrical system 309, 1.6i CAT 1991

Battery	V / CC / RC	12 / 210 / 65
Alternator voltage / full load current / engine rpm		13.8 to 14.8 / _ / 3000
Starter motor current / voltage - cranking	A / V	_
- locked	A / V	_

## Running gear 309, 1.6i CAT 1991

<b>Brakes -</b>		
Front (min. friction material thickness)	mm	1.0
Rear (min. friction material thickness)	mm	_

<b>Tyres</b>		
Saloon	Size	165/70x13
Estate / Van	Size	_
Pressure - front / rear - Saloon	bar	1.9 / 1.8
- Estate / Van	bar	_

<b>Front suspension / wheel alignment</b>		
Toe-in (+) / Toe-out (-)	mm [°]	+0.5±0.5 PW
Camber		-30'±30'
Castor		+2°±30'
King pin inclination		+10°15'±30'

<b>Rear suspension / wheel alignment</b>		
Toe-in (+) / Toe-out (-)	mm [°]	+1.6±0.8 PW <sup>1</sup>
Camber		-50'±30'

## Torque wrench settings 309, 1.6i CAT 1991

Cylinder head - stage 1	Nm	60
- stage 2	Nm	Slacken
Cylinder head - stage 3	Nm	20
- stage 4	Nm	+ 300°
Big-end bearings	Nm	40 <sup>2</sup>
Main bearings	Nm	49
Clutch cover	Nm	25
Flywheel [driveplate]	Nm	49 LkC
Front hubs	Nm	265
Rear hubs	Nm	215
Wheel nuts / bolts	Nm	85
Spark plugs	Nm	25 to 30

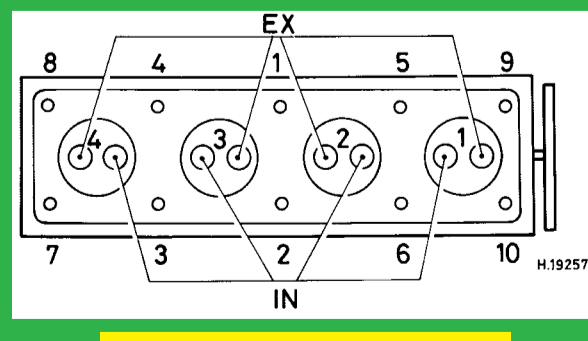
## Capacities 309, 1.6i CAT 1991

Engine oil & filter	litres	5.0
Gearbox - 4-speed [5-speed]	litres	2.0
Automatic transmission - refill	litres	2.4
Final drive	litres	WT
Cooling system	litres	6.1
Fuel tank	litres	55

## Notes and Illustrations

<sup>1</sup>1990 ►: +1.8±0.8

<sup>2</sup>Slacken, then 20 + 70°



1580 cm<sup>3</sup>