

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 Kadett/Astra 2.0i 16V CAT 1988 to 1991

Type	C20 XE DOHC 16V. 110kW. US83	
Capacity (cm ³) / number of cylinders	1998 / 4	
Compression ratio / pressure	bar	10.5 / _
Oil pressure	bar	1.5
Oil temperature	°C	80
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	92
Radiator cap pressure	bar	1.2 to 1.5

Fuel system Kadett/Astra 2.0i 16V CAT 1988 to 1991

Idle speed - manual [auto]	rpm	890 to 990. 4.89 ▶: 860 to 102
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	1.5±0.5 WSM
HC @ idle speed [3000 rpm] - see page VI	ppm	≤200
CO ₂ @ idle speed [3000 rpm] - see page VI	%	_
O ₂ @ idle speed [3000 rpm] - see page VI	%	_
Carburettor / fuel injection	Bosch	
Type / ref	Motronic M 2.5, knock control	
Main jet / needle	_	
Injection pressure	bar	_
Pump pressure	bar	2.5±0.2
Octane rating	RON	95[U]

Ignition system Kadett/Astra 2.0i 16V CAT 1988 to 1991

Type	DME Motronic	
Ignition coil	Bosch 90 241 775	
Primary resistance	ohms	0.20 to 0.34
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	_
Distributor	Bosch	
Points gap (air gap)	mm	_
Dwell angle	° (%)	Electronic control
Condenser capacity	µF	_
Rotation	Anticlockwise	
Ignition timing - basic [static	° Crankshaft @ rpm	18 to 22 BTDC @ idle N/A
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	Bosch/Champion	
Type	FR7DC / RC9MCC	
Electrode gap	mm	0.70 to 0.80

Electrical system Kadett/Astra 2.0i 16V CAT 1988 to 1991

Battery	V / CC / RC	12 / 210 / 150 or 255 / 190
Alternator voltage / full load current / engine rpm	14.5±0.25 / _ / 3500	
Starter motor current / voltage - cranking	A / V	_
- locked	A / V	475 to 600 / 3.5

Running gear Kadett/Astra 2.0i 16V CAT 1988 to 1991

Brakes -		
Front (min. friction material thickness)	mm	7.0 with backing
Rear (min. friction material thickness)	mm	7.0 with backing

Tyres		
Saloon	Size	185/65x14
Estate / Van	Size	_
Pressure - front / rear - Saloon	bar	2.3 / 2.1
- Estate / Van	bar	_

Front suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	-2.0 to 0 L
Camber	-1°15' to +15'	
Castor	+45' to 2°45'	
King pin inclination	_	

Rear suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	-1.0 to +4.0
Camber	-1°40'±30'	

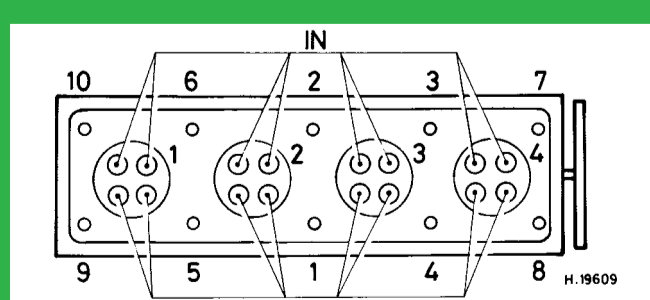
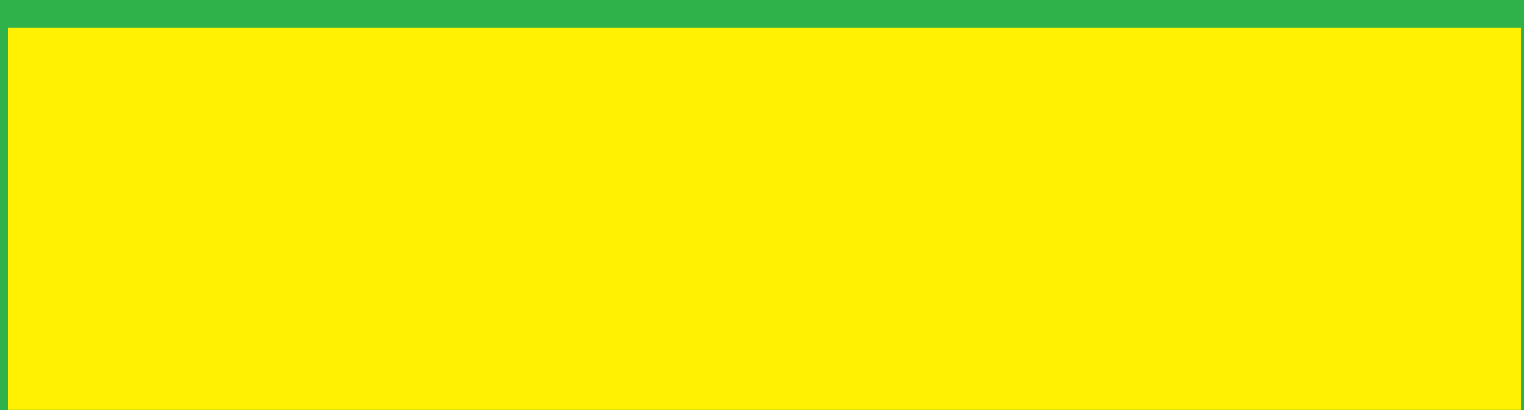
Torque wrench settings Kadett/Astra 2.0i 16V CAT 1988 to 1991

Cylinder head - stage 1	Nm	25 N
- stage 2	Nm	+90°
Cylinder head - stage 3	Nm	+90°
- stage 4	Nm	+90°
Big-end bearings	Nm	35 + 45° to 60°
Main bearings	Nm	50 + 40° to 50°
Clutch cover	Nm	15
Flywheel [driveplate]	Nm	65 + 30° to 45°
Front hubs	Nm	WSM
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	90
Spark plugs	Nm	25

Capacities Kadett/Astra 2.0i 16V CAT 1988 to 1991

Engine oil & filter	litres	4.5
Gearbox - 4-speed [5-speed]	litres	1.8
Automatic transmission - refill	litres	_
Final drive	litres	WT
Cooling system	litres	6.9
Fuel tank	litres	52

Notes and Illustrations



1998 cm³, DOHC 16V