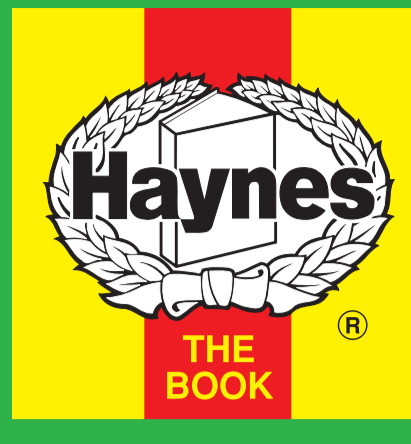


Engine & Cooling	Fuel	Ignition	Electrical	Running gear	Torque settings	Capacities	Notes & Illustrations
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Automotive Technical DATA BOOK

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 Astra-F 1.6i E-Drive CAT 1993 to 1996

Type		X16SZ SOHC 52kW 94/12/EC
Capacity (cm ³) / number of cylinders		1598 / 4
Compression ratio / pressure	bar	10.0 / _
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 Astra-F 1.6i E-Drive CAT 1993 to 1996

Idle speed - manual [auto]	rpm	770 to 930 [750 to 910]
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 ₂ @ idle speed [3000 rpm] - see page VI	%	_
O ₂ @ idle speed [3000 rpm] - see page VI	%	_
Carburettor / fuel injection		GM
Type / ref		Rochester Multec-ZE CFI
Main jet / needle		_
Injection pressure	bar	0.76
Pump pressure	bar	_
Octane rating	RON	95[U]

Ignition system Astra-F 1.6i E-Drive CAT 1993 to 1996

Type		Multec-DIS
Ignition coil		Dual spark
Primary resistance	ohms	0.56±0.05
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	_
Distributor		_
Points gap (air gap)	mm	_
Dwell angle	° (%)	Electronic control
Condenser capacity	µF	_
Rotation		Anticlockwise
Ignition timing - basic [static	° Crankshaft @ rpm	N/A
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		Bosch/Champion
Type		WR7DC / RN7YC
Electrode gap	mm	0.70 to 0.80

Electrical system Astra-F 1.6i E-Drive CAT 1993 to 1996

Battery	V / CC / RC	12 / 44Ah
Alternator voltage / full load current / engine rpm		14.1 to 15.2 / 70 / 3000
Starter motor current / voltage - cranking	A / V	30 to 65 / 10.6 to 12.2
- locked	A / V	350 to 500 / 5.7 to 8.2

Running gear Astra-F 1.6i E-Drive CAT 1993 to 1996

Brakes -		
Front (min. friction material thickness)	mm	7.0 with backing
Rear (min. friction material thickness)	mm	0.5 above rivets
Tyres		
Saloon	Size	155x13: 175/70x13: 175/65x14 ¹
Estate / Van	Size	155x13: 175/70x13: 175/65x14 ²
Pressure - front / rear - Saloon	bar	2.0 / 1.7 (155x13: 2.1 / 1.8)
- Estate / Van	bar	2.1 / 1.9
Front suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	-2.5 to -0.5 L
Camber		-1°5'±45' N/A
Castor		+2°15'±1°N/A
King pin inclination		_
Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	-1.0 to +4.0
Camber		-1°40'±30' N/A

Torque wrench settings Astra-F 1.6i E-Drive CAT 1993 to 1996

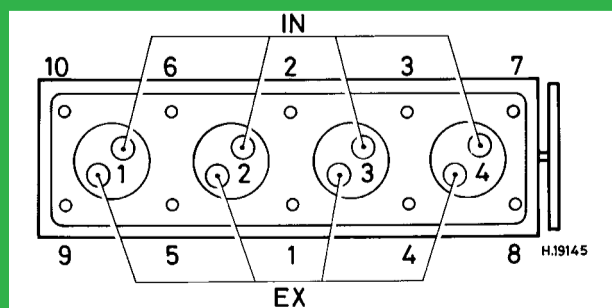
Cylinder head - stage 1	Nm	25 N
- stage 2	Nm	+ 60°
Cylinder head - stage 3	Nm	+ 60°
- stage 4	Nm	+60°
Big-end bearings	Nm	28 ³
Main bearings	Nm	50 + 45° +15° N
Clutch cover	Nm	15
Flywheel [driveplate]	Nm	35 + 30° +15° N
Front hubs	Nm	WSM
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	110
Spark plugs	Nm	25

Capacities Astra-F 1.6i E-Drive CAT 1993 to 1996

Engine oil & filter	litres	3.5
Gearbox - 4-speed [5-speed]	litres	1.6
Automatic transmission - refill	litres	3.0 to 3.5
Final drive	litres	WT
Cooling system	litres	5.6
Fuel tank	litres	52

Notes and Illustrations

- ¹195/55x15: 185/60x14
- ²195/55x15
- ³40mm bolt: 25 + 30°



1598 cm³, 8V