

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 Astra 1.3 N 1984 to 1990

Type		13N SOHC. 44kW. 15.04
Capacity (cm ³) / number of cylinders		1297 / 4
Compression ratio / pressure	bar	8.2 / _
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 1.3 N 1984 to 1990

Idle speed - manual [auto]	rpm	900 to 950 [800 to 850]
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	1.0 to 1.5
HC @ idle speed [3000 rpm] - see page VI	ppm	≤1200
CO ₂ @ idle speed [3000 rpm] - see page VI	%	_
O ₂ @ idle speed [3000 rpm] - see page VI	%	_
Carburettor / fuel injection		Solex/Pierburg
Type / ref		35 PDSI
Main jet / needle		122.5
Injection pressure	bar	_
Pump pressure	bar	0.18 to 0.25
Octane rating	RON	91[E 95 RON]

Ignition system Astra 1.3 N 1984 to 1990

Type		HEI
Ignition coil		Delco Remy
Primary resistance	ohms	0.3 to 0.6
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	_
Distributor		AC Delco
Points gap (air gap)	mm	_
Dwell angle	° (%)	Electronic control
Condenser capacity	µF	_
Rotation		Anticlockwise
Ignition timing - basic [static	° Crankshaft @ rpm	10 BTDC @ idle
V = Vacuum NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	_
	° Crankshaft @ rpm	_
	° Crankshaft @ rpm	_
Centrifugal check.	° Crankshaft @ rpm	0 to 1 @ 1000
	° Crankshaft @ rpm	9 to 15 @ 1800
	° Crankshaft @ rpm	26 to 30 @ 4200
Vacuum range check	mbar	120 to 260
Maximum vacuum advance	° Crankshaft	12.5 to 16.5
Spark plugs		Bosch/Champion
Type		WR7DC / RN7YC
Electrode gap	mm	0.70 to 0.80

Electrical system Astra 1.3 N 1984 to 1990

Battery	V / CC / RC	12 / 175 / 130 or 210 / 150
Alternator voltage / full load current / engine rpm		14.5±0.25 / _ / 3500
Starter motor current / voltage - cranking	A / V	360 to 440 / 9 to 13
- locked	A / V	380 to 460 / 8 to 8.2

Running gear Astra 1.3 N 1984 to 1990

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
Estate / Van	Size	155x13: 165x13
Pressure - front / rear - Saloon	bar	1.8 / 1.6
- Estate / Van	bar	1.8 / 1.8 ¹
Front suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	-2.0 to 0 L
Camber		-1°15' to +15'
Castor		+45' to 2°45' [Est: 0 to +2°]
King pin inclination		_
Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	[-10' to +40']
Camber		-30'±30'

Torque wrench settings Astra 1.3 N 1984 to 1990

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° to 60° N
Clutch cover	Nm	15
Flywheel [driveplate]	Nm	60 LkC
Front hubs	Nm	WSM
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	90
Spark plugs	Nm	25

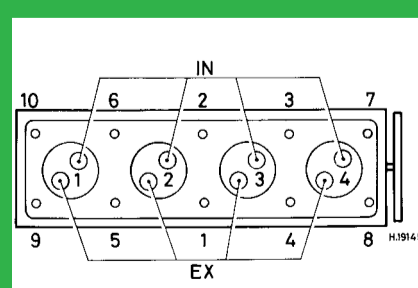
Capacities Astra 1.3 N 1984 to 1990

Engine oil & filter	litres	3.0
Gearbox - 4-speed [5-speed]	litres	1.7 [1.8]
Automatic transmission - refill	litres	6.3
Final drive	litres	WT
Cooling system	litres	7.0
Fuel tank	litres	42 ⁴ Est/Van: 50

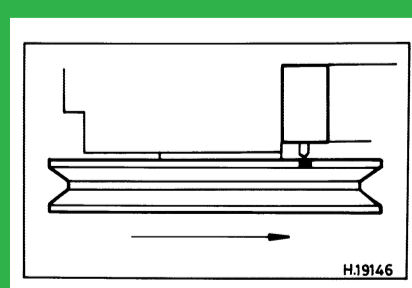
Notes and Illustrations

¹Astramax: 1.8 / 2.2
³40mm bolt: 25 + 30°
⁴86 ▶: 52

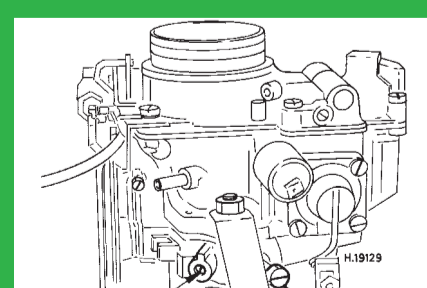
1: Idle speed 2: CO / Mixture



1297 cm³



1297 cm³



Solex 35 PDSI