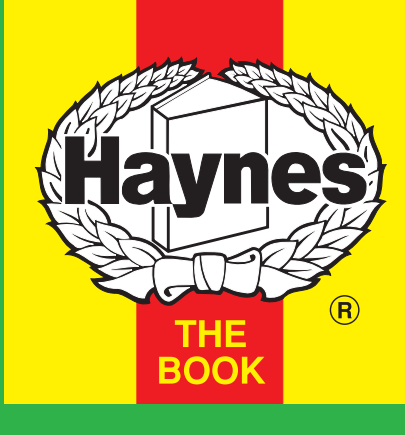




Automotive Technical

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 1.3 N

1984 to 1990

|                                                   |     |                       |
|---------------------------------------------------|-----|-----------------------|
| Type                                              |     | 13N SOHC. 44kW. 15.04 |
| Capacity (cm <sup>3</sup> ) / 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                   |
| CO2 @ idle speed [3000 rpm] - see page VI | %   | _                       |
| O2 @ 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 <sup>†</sup> |

|                                    |        |                               |
|------------------------------------|--------|-------------------------------|
| 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 <sup>3</sup>   |
| 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 <sup>4</sup> Est/Van: 50 |

Notes and Illustrations

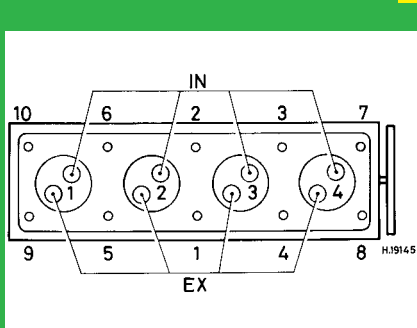
<sup>1</sup>Astramax:1.8 / 2.2

<sup>3</sup>40mm bolt: 25 + 30°

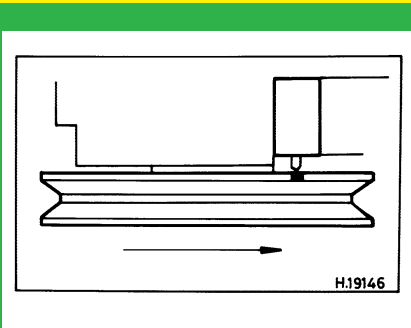
<sup>4</sup>86 ▶: 52

1: Idle speed

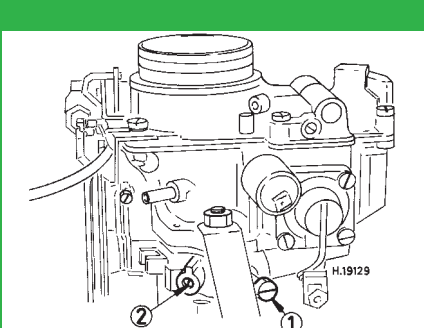
2: CO / Mixture



1297 cm<sup>3</sup>



1297 cm<sup>3</sup>



Solex 35 PDSI