

Engine & Cooling

Fuel

Ignition

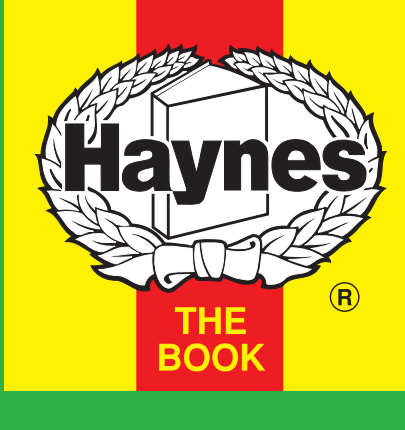
Electrical

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**DATA BOOK**

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Engine and cooling system

Ducato 2.0

1986 to 1991

|                                                   |     |                      |
|---------------------------------------------------|-----|----------------------|
| Type                                              |     | XN1T (170B) OHV 55kW |
| Capacity (cm <sup>3</sup> ) / number of cylinders |     | 1971 / 4             |
| Compression ratio / pressure                      | bar | 8.0 / _              |
| Oil pressure                                      | bar | [3.1 to 4.5]         |
| Oil temperature                                   | °C  | 90                   |
| Valve clearance - inlet                           | mm  | 0.15                 |
| Valve clearance - exhaust                         | mm  | 0.30                 |
| Firing order                                      |     | 1-3-4-2              |
| No 1 cylinder position                            |     | FE                   |
| Thermostat opening temperature                    | °C  | 80 to 83             |
| Radiator cap pressure                             | bar | 0.9±0.1              |

Fuel system

Ducato 2.0

1986 to 1991

|                                           |     |                     |
|-------------------------------------------|-----|---------------------|
| Idle speed - manual [auto]                | rpm | 800 to 850          |
| Fast idle speed - manual [auto]           | rpm | _                   |
| CO @ idle speed [3000 rpm] - see page VI  | %   | 1.0 to 2.0          |
| HC @ idle speed [3000 rpm] - see page VI  | ppm | ≤1200               |
| CO2 @ idle speed [3000 rpm] - see page VI | %   | 10.0                |
| O2 @ idle speed [3000 rpm] - see page VI  | %   | _                   |
| Carburettor / fuel injection              |     | Solex               |
| Type / ref                                |     | 34PBISA 16 PEU A315 |
| Main jet / needle                         |     | 130±005             |
| Injection pressure                        | bar | _                   |
| Pump pressure                             | bar | 0.25                |
| Octane rating                             | RON | 92[E 95 RON]        |

Ignition system

Ducato 2.0

1986 to 1991

|                                 |                    |                      |
|---------------------------------|--------------------|----------------------|
| Type                            |                    | Electronic           |
| Ignition coil                   |                    | Ducellier. Bosch     |
| Primary resistance              | ohms               | 0.74 to 0.90 typical |
| Ballast resistor                | ohms               | _                    |
| Voltage - Tmnl 15(+) to earth   | V                  | _                    |
| Distributor                     |                    | Ducellier/Bosch      |
| Points gap (air gap)            | mm                 | _                    |
| Dwell angle                     | ° (%)              | _                    |
| Condenser capacity              | µF                 | _                    |
| Rotation                        |                    | Clockwise            |
| Ignition timing - basic [static | ° Crankshaft @ rpm | 10 BTDC @ 800        |
| V = Vacuum    NV = No Vacuum    |                    | _                    |
| Total ignition advance          | ° Crankshaft @ rpm | _                    |
|                                 | ° Crankshaft @ rpm | _                    |
|                                 | ° Crankshaft @ rpm | _                    |
| Centrifugal check.              | ° Crankshaft @ rpm | 0 @ 1350 to 1650     |
|                                 | ° Crankshaft @ rpm | 25 to 28 @ 3000      |
|                                 | ° Crankshaft @ rpm | 34 to 38 @ 5000      |
| Vacuum range check              | mbar               | 80 to 300            |
| Maximum vacuum advance          | ° Crankshaft       | 18 to 22             |
| Spark plugs                     |                    | Bosch/Champion       |
| Type                            |                    | W7DC / N9YC          |
| Electrode gap                   | mm                 | 0.70 to 0.80         |

Electrical system

Ducato 2.0

1986 to 1991

|                                                     |             |                          |
|-----------------------------------------------------|-------------|--------------------------|
| Battery                                             | V / CC / RC | 12 / 255 / 55Ah          |
| Alternator voltage / full load current / engine rpm |             | 13.8 to 14.5 / 55 / 3000 |
| Starter motor current / voltage - cranking          | A / V       | 180 to 200 / 8.2 to 8.6  |
| - locked                                            | A / V       | 315 to 365 / 5.6 to 6.4  |

Running gear

Ducato 2.0

1986 to 1991

|                                          |    |     |
|------------------------------------------|----|-----|
| <b>Brakes -</b>                          |    |     |
| Front (min. friction material thickness) | mm | 2.0 |
| Rear (min. friction material thickness)  | mm | 1.0 |

|                                  |      |                   |
|----------------------------------|------|-------------------|
| <b>Tyres</b>                     |      |                   |
| Saloon                           | Size | _                 |
| Estate / Van                     | Size | 185x14: 195/75x16 |
| Pressure - front / rear - Saloon | bar  | _                 |
| - Estate / Van                   | bar  | 3.4 / 3.4         |

|                                           |        |                 |
|-------------------------------------------|--------|-----------------|
| <b>Front suspension / wheel alignment</b> |        |                 |
| Toe-in (+) / Toe-out (-)                  | mm [°] | +0.5 to 2.5     |
| Camber                                    |        | +1°30' to 2°30' |
| Castor                                    |        | 0 to +1°        |
| King pin inclination                      |        | _               |

|                                          |        |   |
|------------------------------------------|--------|---|
| <b>Rear suspension / wheel alignment</b> |        |   |
| Toe-in (+) / Toe-out (-)                 | mm [°] | 0 |
| Camber                                   |        | 0 |

Torque wrench settings

Ducato 2.0

1986 to 1991

|                         |    |                                     |
|-------------------------|----|-------------------------------------|
| Cylinder head - stage 1 | Nm | 50, then slacken <sup>1</sup>       |
| - stage 2               | Nm | 20 + 180 <sup>o1</sup>              |
| Cylinder head - stage 3 | Nm | Warm up & cool 6 hours <sup>1</sup> |
| - stage 4               | Nm | + 35 <sup>o1</sup>                  |
| Big-end bearings        | Nm | 39                                  |
| Main bearings           | Nm | 73                                  |
| Clutch cover            | Nm | 15                                  |
| Flywheel [driveplate]   | Nm | 66                                  |
| Front hubs              | Nm | 421 to 510                          |
| Rear hubs               | Nm | WSM                                 |
| Wheel nuts / bolts      | Nm | 160                                 |
| Spark plugs             | Nm | 23                                  |

Capacities

Ducato 2.0

1986 to 1991

|                                 |        |                  |
|---------------------------------|--------|------------------|
| Engine oil & filter             | litres | 4.6              |
| Gearbox - 4-speed [5-speed]     | litres | 1.3 <sup>2</sup> |
| Automatic transmission - refill | litres | _                |
| Final drive                     | litres | WT               |
| Cooling system                  | litres | 9.0              |
| Fuel tank                       | litres | 70               |

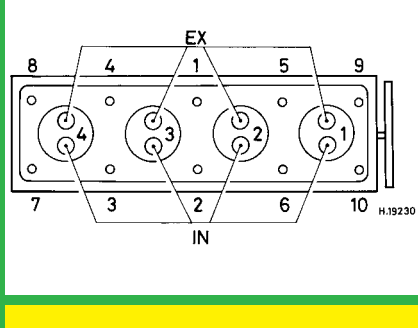
Notes and Illustrations

<sup>1</sup>Torx: 60, slacken, then 20 + 300°

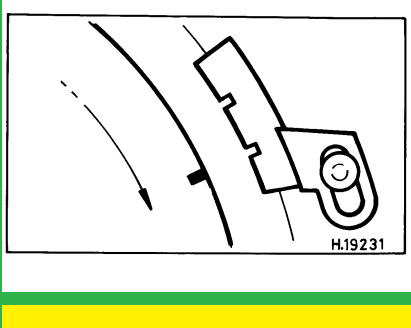
<sup>2</sup>Yellow dipstick: 1.6

1: Idle speed

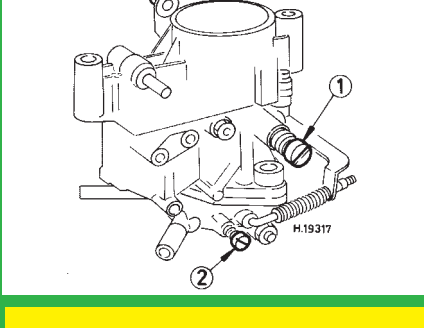
2: CO / Mixture



1971 cm³



1971 cm³



Solex 34 PBISA