

Engine & CoolingFuelIgnitionElectricalRunning gearTorque settingsCapacitiesNotes & Illustrations



Automotive Technical  
DATA BOOK

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MENUHELP

Engine and cooling system

Ducato 2.01990 to 1994

|                                      |                      |              |
|--------------------------------------|----------------------|--------------|
| Type                                 | XN1T (170B) OHV 55kW |              |
| Capacity (cm³) / 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                   | 0.10         |
| Valve clearance - exhaust            | mm                   | 0.25         |
| Firing order                         | 1-3-4-2              |              |
| No 1 cylinder position               | FE                   |              |
| Thermostat opening temperature       | °C                   | 80 to 83     |
| Radiator cap pressure                | bar                  | 0.98         |

Fuel system

Ducato 2.01990 to 1994

|                                           |                     |              |
|-------------------------------------------|---------------------|--------------|
| 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 2.01990 to 1994

|                                 |                    |                  |
|---------------------------------|--------------------|------------------|
| Type                            | Electronic         |                  |
| Ignition coil                   | Ducellier. Bosch   |                  |
| Primary resistance              | ohms               | 0.82             |
| 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 | _                |
|                                 | ° Crankshaft @ rpm | 0 @ 1350 to 1650 |
| Centrifugal check.              | ° Crankshaft @ rpm | 25 to 28 @ 3000  |
|                                 | ° Crankshaft @ rpm | 34 to 38 @ 5000  |
|                                 | ° Crankshaft @ rpm | 34 to 38 @ 5000  |
| Vacuum range check              | mbar               | 108 to 400       |
| 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 2.01990 to 1994

|                                                     |                   |                         |
|-----------------------------------------------------|-------------------|-------------------------|
| Battery                                             | V / CC / RC       | 12 / 255 / 55Ah         |
| Alternator voltage / full load current / engine rpm | 14.25 / 55 / 3500 |                         |
| Starter motor current / voltage - cranking          | A / V             | 180 to 200 / 8.2 to 8.6 |
|                                                     | A / V             | 315 to 365 / 5.6 to 6.4 |

Running gear

Ducato 2.01990 to 1994

|                                          |    |     |
|------------------------------------------|----|-----|
| Brakes -                                 |    |     |
| Front (min. friction material thickness) | mm | 2.0 |
| Rear (min. friction material thickness)  | mm | 1.0 |

|                                  |      |                   |
|----------------------------------|------|-------------------|
| Tyres                            |      |                   |
| Saloon                           | Size | _                 |
| Estate / Van                     | Size | 185x14: 195/75x16 |
| Pressure - front / rear - Saloon | bar  | _                 |
|                                  | bar  | WSM               |

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

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

Torque wrench settings

Ducato 2.01990 to 1994

|                         |    |            |
|-------------------------|----|------------|
| Cylinder head - stage 1 | Nm | 60         |
| - stage 2               | Nm | Slacken    |
| Cylinder head - stage 3 | Nm | 20         |
| - stage 4               | Nm | + 300°     |
| 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 2.01990 to 1994

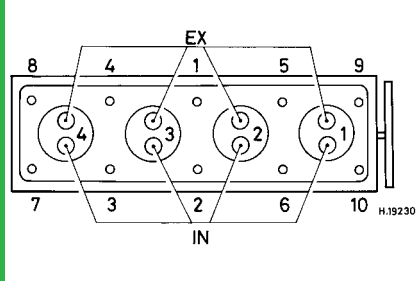
|                                 |        |     |
|---------------------------------|--------|-----|
| Engine oil & filter             | litres | 4.6 |
| Gearbox - 4-speed [5-speed]     | litres | 1.5 |
| Automatic transmission - refill | litres | _   |
| Final drive                     | litres | WT  |
| Cooling system                  | litres | 9.0 |
| Fuel tank                       | litres | 70  |

Notes and Illustrations

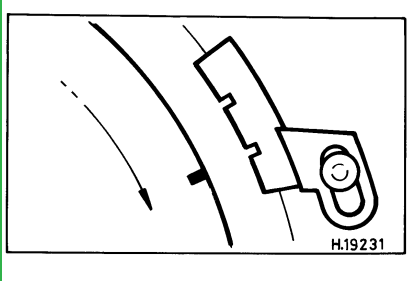
<sup>1</sup>Maxi: +2° to 2°30'

<sup>2</sup>Maxi: 0 to -30'

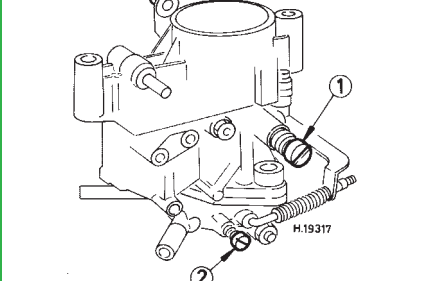
1: Idle speed2: CO / Mixture



1971 cm³



1971 cm³



Solex 34 PBISA