

Engine & Cooling

Fuel

Ignition

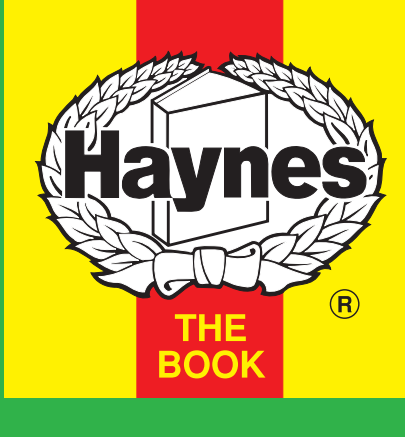
Electrical

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Automotive Technical  
**DATA BOOK**

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HELP

Engine and cooling systemDelta HF Turbo CAT1991 to 1993

|                                      |     |                           |
|--------------------------------------|-----|---------------------------|
| Type                                 |     | 831 B7.046 DOHC 97kW US83 |
| Capacity (cm³) / number of cylinders |     | 1585 / 4                  |
| Compression ratio / pressure         | bar | 7.5±0.15 / _              |
| Oil pressure                         | bar | [3.4 to 4.9]              |
| Oil temperature                      | °C  | 100                       |
| Valve clearance - inlet              | mm  | 0.40±0.04                 |
| Valve clearance - exhaust            | mm  | 0.50±0.04                 |
| Firing order                         |     | 1-3-4-2                   |
| No 1 cylinder position               |     | TBE                       |
| Thermostat opening temperature       | °C  | 81 to 85                  |
| Radiator cap pressure                | bar | 0.98                      |

Fuel systemDelta HF Turbo CAT1991 to 1993

|                                           |     |                               |
|-------------------------------------------|-----|-------------------------------|
| Idle speed - manual [auto]                | rpm | 800 to 860                    |
| Fast idle speed - manual [auto]           | rpm | _                             |
| CO @ idle speed [3000 rpm] - see page VI  | %   | ≤0.5                          |
| HC @ idle speed [3000 rpm] - see page VI  | ppm | ≤100                          |
| CO2 @ idle speed [3000 rpm] - see page VI | %   | _                             |
| O2 @ idle speed [3000 rpm] - see page VI  | %   | _                             |
| Carburettor / fuel injection              |     | Weber                         |
| Type / ref                                |     | IAW 049/01 + Garrett T2 turbo |
| Main jet / needle                         |     | _                             |
| Injection pressure                        | bar | 2.5                           |
| Pump pressure                             | bar | ≤4.5                          |
| Octane rating                             | RON | 95[U]                         |

Ignition systemDelta HF Turbo CAT1991 to 1993

|                                 |                    |                        |
|---------------------------------|--------------------|------------------------|
| Type                            |                    | IAW                    |
| Ignition coil                   |                    | Marelli BAE 504CK      |
| Primary resistance              | ohms               | 0.42 to 0.50           |
| Ballast resistor                | ohms               | _                      |
| Voltage - Tmnl 15(+) to earth   | V                  | _                      |
| Distributor                     |                    | Marelli                |
| Points gap (air gap)            | mm                 | [0.3 to 0.4]           |
| Dwell angle                     | ° (%)              | _                      |
| Condenser capacity              | µF                 | _                      |
| Rotation                        |                    | Clockwise              |
| Ignition timing - basic [static | ° Crankshaft @ rpm | Computer control       |
| V = Vacuum   NV = No Vacuum     |                    | NV                     |
| Total ignition advance          | ° Crankshaft @ rpm | 14±2 BTDC @ 800 to 860 |
|                                 | ° Crankshaft @ rpm | 50±2 BTDC @ 5000       |
|                                 | ° 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                  |
| Type                            |                    | WR6DTC                 |
| Electrode gap                   | mm                 | 0.80 to 1.00           |

Electrical systemDelta HF Turbo CAT1991 to 1993

|                                                     |             |                         |
|-----------------------------------------------------|-------------|-------------------------|
| Battery                                             | V / CC / RC | 12 / 210 / 65 (50Ah)    |
| Alternator voltage / full load current / engine rpm |             | 14.0 to 14.3 / _ / 3000 |
| Starter motor current / voltage - cranking          | A / V       | 260 / 9.5               |
| - locked                                            | A / V       | 460 to 500 / 7.4        |

Running gearDelta HF Turbo CAT1991 to 1993

|                                          |    |     |
|------------------------------------------|----|-----|
| Brakes -                                 |    |     |
| Front (min. friction material thickness) | mm | 1.5 |
| Rear (min. friction material thickness)  | mm | 1.5 |

|                                  |      |           |
|----------------------------------|------|-----------|
| Tyres                            |      |           |
| Saloon                           | Size | 165/65x14 |
| Estate / Van                     | Size | _         |
| Pressure - front / rear - Saloon | bar  | 2.0 / 2.0 |
| - Estate / Van                   | bar  | _         |

Front suspension / wheel alignment

|                          |        |                |
|--------------------------|--------|----------------|
| Toe-in (+) / Toe-out (-) | mm [°] | +1.0 to -2.5   |
| Camber                   |        | +10'±30' N/A   |
| Castor                   |        | +2°20'±30' N/A |
| King pin inclination     |        | +9°18'         |

Rear suspension / wheel alignment

|                          |        |              |
|--------------------------|--------|--------------|
| Toe-in (+) / Toe-out (-) | mm [°] | +2.0 to 5.0  |
| Camber                   |        | -20'±30' N/A |

Torque wrench settingsDelta HF Turbo CAT1991 to 1993

|                         |    |          |
|-------------------------|----|----------|
| Cylinder head - stage 1 | Nm | 20       |
| - stage 2               | Nm | 40       |
| Cylinder head - stage 3 | Nm | + 90°    |
| - stage 4               | Nm | + 90°    |
| Big-end bearings        | Nm | 51       |
| Main bearings           | Nm | 20 + 80° |
| Clutch cover            | Nm | 38       |
| Flywheel [driveplate]   | Nm | 83       |
| Front hubs              | Nm | 294      |
| Rear hubs               | Nm | 216      |
| Wheel nuts / bolts      | Nm | 86       |
| Spark plugs             | Nm | 25 to 30 |

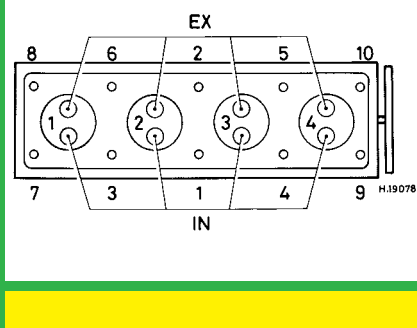
CapacitiesDelta HF Turbo CAT1991 to 1993

|                                 |        |     |
|---------------------------------|--------|-----|
| Engine oil & filter             | litres | 4.8 |
| Gearbox - 4-speed [5-speed]     | litres | 3.1 |
| Automatic transmission - refill | litres | _   |
| Final drive                     | litres | WT  |
| Cooling system                  | litres | 6.5 |
| Fuel tank                       | litres | 57  |

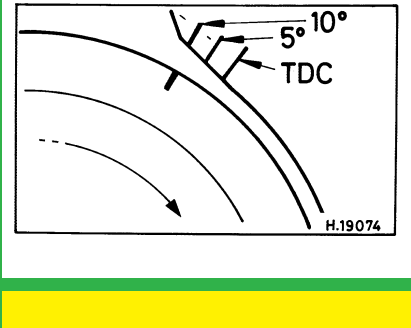
Notes and Illustrations



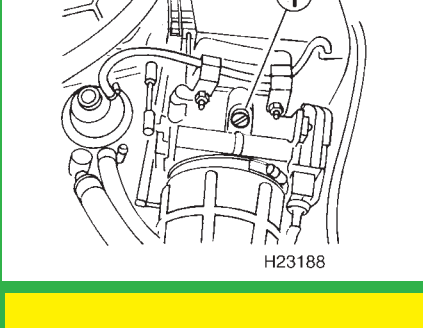
1: Idle speed      2: CO / Mixture



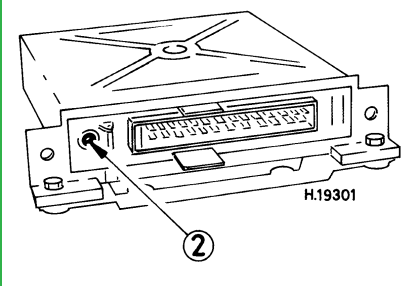
1585 cm³



1585 cm³



Weber IAW



Weber IAW