

## **TECHNICAL DATA**

### **ENGINE MODEL 4.340 TDI**



#### **ENGINE SPECIFICATION**

Number of cylinders : 4  
 Displacement : 3319 cm<sup>3</sup>  
 Bore - Stroke : 98 X 110  
 Compression ratio : 21.8/1  
 Max pressure difference between cyl.:10%  
 Compression pressure : 29 to 33 b mini 23  
 Maximum speed without load : 2950  
 Maximum RPM in load : 2600  
 Idle RPM in forward gear : 780-800  
 Max. torque : 35 MKG at 1600 rpm  
 Firing order : 1-3-4-2  
 Rotation : counter clockwise (from flywheel)

#### **INJECTION**

Type of injector :  
 Fuel injection pressure : 140 b +10/-0  
 Injection pump manufacturer : BOSCH  
 MINI  
 Injection timing : 16° +1/-0 before TDC

#### **TURBOCHARGER**

Boost pressure at 2600 rpm : 1b to 1.35 b  
 Exhaust gas temperature:430°C<T<450°C  
 Axial shaft clearance : 0.12 mm maxi

#### **TIGHTENING TORQUE**

Arm head cover cap nuts :  
 Cylinder head bolts : M12 99Nm  
 Flywheel bolts : M12 99Nm  
 Connecting rod bolts : M10 80Nm  
 Rocker arm bracket nuts : M10 50Nm  
 Main bearing caps bolts : M14 150Nm  
 Crankshaft end bolt : M16 360Nm  
 Nozzle holder assembly : M20 60Nm  
 Glow plugs : M10 20Nm  
 Inj. pump drive shaft nut : M14 80Nm  
 Starter's terminal B mounting nut M8  
 11Nm

#### **LUBRIFICATION**

Oil pressure at idle RPM : 2 bar  
 Oil pressure at maximum load :2b<P<3.4b  
 Recommended oil : API CG-4/SG  
 MOTUL TEKMA MEGA 15W40 or  
 equivalence  
 Oil pan capacity : 13 l  
 Gearbox model : following type  
 Oil capacity :  
 Recommended oil :

#### **CLOSED COOLING SYSTEM**

Capacity : 12 l

#### **DIAGRAMS**

Valve clearance (cold) :  
 Inlet : 0.25  
 Exhaust : 0.25  
 Valve recessing : maxi -0.4

#### **PISTON RINGS**

Piston ring gap :  
 Piston top compression : 0.30 to 0.45  
 Limit : 1.25 mm  
 Intermediate : 0.30 to 0.45  
 Limit : 1.25 mm  
 Oil control : 0.25 to 0.45  
 Limit : 1.25 mm

#### **CYLINDER HEAD**

Cylinder head surface flatness :< 0.05 mm

#### **SEA WATER PUMP**

80 l/mn

#### **ELECTRICITY**

Glow plug resistance : 1.0 ohm  
 Recommended battery : 110 AH