

TECHNICAL DATA
ENGINE MODEL N3.30
 (Since serial number KTD08090423)



ENGINE SPECIFICATION

Number of cylinders: 3
 Displacement: 1123 cc
 Bore - Stroke: 78 X 78.4 mm
 Compression ratio: 23/1 mm
 Max. Pressure difference between cyl. :
 10%
 Compression pressure: 29 to 33 bars
 Maximum speed without load: 3800 rpm
 Maximum speed in load: 3600 rpm
 Idle speed in forward gear: 930 rpm
 Max. Torque: 68.3 Nm @ 2000rpm
 Firing order: 1 - 2 - 3
 Rotation: Anti clockwise (Flywheel)

INJECTION

Combustion chamber: E- T VCS
 Type of injector: MINI (DNOP)
 Fuel injection pressure: 14 to 15 MPa
 Injection pump manufacturer: BOSCH MD
 Injection timing: 20° before TDC

TIGHTENING TORQUE

Arm head cover cap nuts: 0.7 to 0.9 Nm
 Cylinder head bolts: 6.5 to 7.0 Nm
 Flywheel bolts: 5.5 to 6.0 Nm
 Connecting rod bolts: 4.2 to 4.7 Nm
 Rocker arm bracket nuts: 2.2 to 2.7 Nm
 Main bearing caps bolts
 M8: 3.0 to 3.5 Nm
 M9: 5.0 to 5.5 Nm
 Nozzle holder assembly: 0.5 to 7.0 Nm
 Glow plugs M8: 2.0 to 2.5 Nm

LUBRIFICATION

Oil pressure at idle RPM: 0.5 bar
 Oil pressure at maximum load:
 2 to 4.5 bars
 Recommended oil: 15W40 API CD
 Oil pan capacity: 4 litres <angle> 5 litres
 Gearbox model:
 Oil capacity: } depending on type
 Recommended oil: }

DIAGRAMS

Valve clearance (cold)
 Inlet: 0.15 to 0.18 mm
 Exhaust: 0.15 to 0.18 mm
 Valve recessing: - 0.05 to + 0.15 mm

PISTON RINGS

Piston ring gap:
 Piston top compression: 0.30 to 0.45 mm
 Intermediate: 0.30 to 0.45 mm
 Oil control: 0.25 to 0.40 mm

CYLINDER HEAD

Cylinder head surface flatness : <0.05 mm

SEA WATER PUMP

Water flow: 38 litres per minutes

GLOW PLUGS

Resistance: 0.90 to 1.1 ohms