

TECHNICAL DATA

ENGINE MODEL N4.40



ENGINE SPECIFICATIONS

Number of cylinders: 4
 Displacement: 1857 cc
 Bore - Stroke: 80 X 92.4 mm
 Compression ratio: 23/1
 Max. pressure difference between cyl. : 10%
 Compression pressure: 36 to 38 bars
 Maximum speed without load: 3050 rpm
 Maximum RPM in load: 2800 rpm
 Idle RPM in forward gear: 850 rpm
 Max. Torque:
 Firing order: 1 - 3 - 4 - 2
 Rotation: Anti clockwise (Flywheel)

INJECTION

Type of injector: BOSCH JET
 Fuel injection pressure: 140 to 150 bars
 Injection pump manufacturer:
 BOSCH PFR4M
 Injection timing: 18° before TDC

TIGHTENING TORQUE

Arm head cover cap nuts: 6.9 to 8.8 Nm
 Cylinder head bolts: M11 93 to 98 Nm
 Flywheel bolts: M12 98 to 107 Nm
 Connecting rod bolts: with coll.: 38 Nm
 Without coll.: 48 Nm
 Rocker arm bracket nuts: 26 Nm
 Main bearing caps bolts: 46 TO 50 Nm
 Main bearing caps bolts: 68 to 73 Nm
 Nozzle holder assembly: 50 Nm to 68 Nm
 Glow Plug : 22 Nm

LUBRIFICATION

Oil pressure at idle RPM: 1 bar
 Oil pressure at maximum load: 3 to 4.5 b
 Recommended oil: 15W 40API CD
 Oil pan capacity: 9.5 litres
 Gearbox model: }
 Oil capacity: } depending on type
 Recommended oil: }

DIAGRAMS

Valve clearance (cold):
 Inlet: 0.18 to 0.20 mm
 Exhaust: 0.18 to 0.20 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 0.45 mm

CYLINDER HEAD

Cylinder head surface flatness: 0.05 mm

SEA WATER PUMP

Water flow: 35 litres per minutes

GLOW PLUGS

Resistance : 0.8 ohms