

TECHNICAL DATA

ENGINE MODEL N2.10



ENGINE SPECIFICATION

Number of cylinders: 2
 Displacement: 479 cc
 Bore - Stroke: 67 X 68 mm
 Compression ratio : 23/1
 Mini compression pressure: 23bars
 Compression pressure: 29 to 33 bars
 Maximum speed without load: 3250 rpm
 Maximum RPM in load: 3000 rpm
 Idle RPM in forward gear: 1050 rpm
 Firing order: 1 - 2
 Rotation: Anti clockwise (flywheel)

INJECTION

Type of injector: BOSCH JET
 Fuel injection pressure: 140 bars
 Injection pump manufacturer:
 BOSCH MD MINI
 Injection timing: 20 to 22° before TDC

TIGHTENING TORQUE

Arm head cover cap nuts: 0.4 to 0.6 kgf
 Cylinder head bolts: 4 to 4.5 kgf
 Flywheel bolts: 5.5 to 6 kgf
 Connecting rod bolts: 2.7 to 3.1 kgf
 Rocker arm bracket nuts: 1 to 1.15 kgf
 Main bearing caps bolts M6: 1.3 to 1.6 kgf
 Main bearing caps bolts M7: 2.7 to 3.1 kgf
 Nozzle holder assembly: 5 to 7 kgf
 Glow plugs: 0.8 to 1.5 kgf

LUBRIFICATION

Oil pressure at idle RPM: 1 bar
 Oil pressure at maximum load:
 2 to 4.5 bars
 Recommended oil: API CD 15W40
 Oil pan capacity: 1.9 litres
 Gearbox model :
 Oil capacity: } see model used
 Recommended oil: }

COOLING SYSTEM

Capacity: 2.7 litres
 Liquid: 50% antifreeze + 50% water

DIAGRAMS

Valve clearance (cold):
 Inlet: 0.15 to 0.18 mm
 Exhaust: 0.15 to 0.18 mm
 Valve recessing: 0.30 mm

PISTON RINGS

Piston ring gap:
 Piston compression: 0.15 to 0.30 mm
 Oil control: 0.30 to 0.45 mm

CYLINDER HEAD

Cylinder head surface flatness: < 0.05mm

SEA WATER PUMP

Water flow: 20 litres/mn

GLOW PLUGS

Resistance : \geq 0.90 ohms