



TECHNICAL DATA
ENGINE TYPE
T4.200 T4.180 T4.165

CARACTERISTICS

Number of cylinders: 4
Displacement : 2982 Cm³
Bore - Stroke : 96 X 103 mm
Compression ratio : 17.9 / 1
Compression pressure : 2.7 MPa
2.2 MPa mini
Max. pressure diff . between cyl. : 0.5 MPa
Maximum rpm in load : 3400 tr/min
Maximum speed without load : 4000 tr/mn
Idle speed : 750 tr/mn
Max. torque : 480 Nm @ 2200 tr/mn
Firing order : 1-3-4-2
Rotation : anti-horaire (vu volant)
Cylinder n°1 Timing side

INJECTION

Injectors : Denso
HP fuel pump : Denso HP
Injection pressure : up to 180 MPa
All injection parameters controlled by
computer (ECM)

TURBO COMPRESSOR

Delivery pressure :
107 +/- 10 kPa
Exhaust gas temperature :
650°C maxi
Axial play : 0.173 mm

TIGHTENING TORQUE

Arm head cover : 9 Nm
Cylinder head bolts : 85 Nm +90°+90°
Flywheel bolts : 145 Nm
Connecting rods bolts : 35 Nm + 90°
Main bearing bolts : 50 Nm + 90°
Camshaft pulley: 98 Nm
Crankshaft pulley: 365 Nm
Injectors flange/cylinder head: 21.6 Nm
Glow plugs: 13 Nm
Injection pumps nut: 64 Nm
Nut B+ starter : 4 Nm

LUBRICATION

Oil pressure at idle : 0.03 MPa mini
Oil pressure at max. load : 0.25-0.61 MPa
Recommended oil : API CD15W40
(MOTUL TEKMA MEGA OU
MOTUL MARINE 4T)
Oil pan Capacity : 6,4 - 7,7 litres
inclinaison depending
Gearbox : see type
Capacity : see type
Oil : see type

COOLING CIRCUIT

Capacity : 15.5litres
Thermostat opening température: 82 °C

DIAGRAMS

JTappet clearance (engine cold):
Intake: 0.20~0.30 Exhaust: 0.35~0.45
Adjusting W/valve lifter, step of 0.020 mm
Excess high of piston: 0.005~0.255 mm

PISTON RINGS

Cut value clearance:
- Firing piston ring: 0.27-0.39 mm
limit: 0.85 mm -
Compression Ring : 0.55-0.70 mm
limit : 1.07 mm
Oil ring : 0.20-0.40 mm
limit: 0.77 mm

CYLINDEAR HEAD

Surface flatness: < 0.15 mm

SEA WATER PUMP

Flow: 125 litres/mn @ 3400 tr/mn

ELECTRICITY

Glow plug resistance: 0.72 Ω
Recommended Battery: 12V 100/110Ah
Alternator ND 14V 100A
Starter: 12V 2,2 kW