

YTO Engine Technical Data

Diesel Engine Model – LR4M3L-DA (D91F-U2) 115kw/1500rpm

Basic technical data

Number of cylinders	4
Cylinder arrangement	In-line
Combustion Cycle	Four stroke, compression ignition
Cooling medium	Liquid
Method of air aspiration	Turbocharged with Aftercooler
Compression ratio	17:1
Bore	110mm
Stroke	125mm
Cubic capacity	4.75litres
Direction of rotation	Anti-clockwise viewed on flywheel
Firing order	1-3-4-2 (1cyl furthest from flywheel)
Total weight (engine only)	(dry) 430±20 kg

Overall dimensions

Height	1100 mm.
Length	1160 mm
Width	720 mm

Ratings

Steady state speed stability at constant load	± 0.25%
---	---------

Operating point

Engine speed	1500 rev/min
Engine power(gross)	115kw (standby)
Static injection timing	15~20 °CA before the TDC

Sound level

Sound pressure level 1500 rev/min	≤ 113 dBA
-----------------------------------	-----------

Test Conditions

Air temperature	25 °C
Barometric pressure	100kPa
Relative humidity	30%
Air inlet Restriction at maximum power (nominal)	≤ 5kPa
Exhaust back pressure (nominal)	≤ 6 kPa

Cooling system

Total coolant capacity: (engine only)	6litres
Maximum top tank temperature	99 °C
Thermostat operating range	76~95 °C

Coolant intake size:Φ45mm

Coolant outlet size:Φ45mm

Lubrication system

Lubricating oil type :.....L-ECD 15W/40

Lubricating oil capacity:14 litres

Lubricating oil temperature maximum to bearings 115°C

Oil Pressure @ Idle Speed.....≥98kPa

@ Governed Speed294~490kPa

Maximum engine operating angles

Front up,front down/right side or left side.....20° /15°

Fuel system

Fuel oil type0# or 10#

Type of injection systemDirect injection

Fuel injection pumpPM pump

Governor typeElectronic

Electrical system

Alternator.24volts with integral
regulator

Starter motor24volts

Recommended Battery Capacity.....165A

Energy balance

Energy in fuel.....11259btu/min

Gross heat to power.....4208btu/min

Energy to coolant and oil.....3152btu/min

Energy to exhaust.....3635btu/min

Heat to radiation.....264btu/min

