

# YTO Engine Technical Data

## Diesel Engine Model – LR6B3L-D

### Basic technical data

|                            |                                           |
|----------------------------|-------------------------------------------|
| Number of cylinders        | 6                                         |
| Cylinder arrangement       | In-line                                   |
| Combustion Cycle           | Four stroke, compression ignition         |
| Cooling medium             | Liquid                                    |
| Method of air aspiration   | Turbocharged with aia-air intercooler     |
| Compression ratio          | 17:1                                      |
| Bore                       | 108mm                                     |
| Stroke                     | 125mm                                     |
| Cubic capacity             | 6.87litres                                |
| Direction of rotation      | Anti-clockwise viewed on flywheel         |
| Firing order               | 1-5-3-6-2-4 (1cyl furthest from flywheel) |
| Total weight (engine only) | (dry) 640±20 kg                           |

### Overall dimensions

|        |         |
|--------|---------|
| Height | 1230mm. |
| Length | 1460 mm |
| Width  | 830 mm  |

### Ratings

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

### Operating point

|                         |                         |
|-------------------------|-------------------------|
| Engine speed            | 1500 rev/min            |
| Engine power(gross)     | 159kw (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) | 9.35litres |
| Maximum top tank temperature          | 99 °C      |
| Thermostat operating range            | 76~95 °C   |
| Coolant intake size                   | Φ52mm      |
| Coolant outlet size                   | Φ52mm      |

### Lubrication system

|                                                 |              |
|-------------------------------------------------|--------------|
| Lubricating oil type                            | L-ECD 15W/40 |
| Lubricating oil capacity                        | 16litres     |
| Lubricating oil temperature maximum to bearings | 115°C        |
| Oil Pressure @ Idle Speed                       | ≥98kPa       |
| @ Governed Speed                                | 294~490kPa   |
| Maximum engine operating angles                 |              |
| Front up,front down/right side or left side     | 20° /15°     |

### Fuel system

|               |           |
|---------------|-----------|
| Fuel oil type | 0# or 10# |
|---------------|-----------|

Type of injection system ... Direct injection  
Fuel injection pump ... P pump  
Governor type ... Electronic

### Electrical system

Alternator. ... 24volts with integral regulator  
Starter motor ... 24volts  
Recommended Battery Capacity.....165A

### Energy balance

Energy in fuel.....20970btu/min  
Gross heat to power.....7838btu/min  
Energy to coolant and oil.....5870btu/min  
Energy to exhaust.....6770btu/min  
Heat to radiation.....491btu/min

油耗率

转矩

