MARINE DIESEL ENGINE

6CXBM-GT
S-rating 374kW [509mhp] (Planing craft Application)
L-rating 341kW [464mhp]

Engine Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>6CXBM-GT</th>
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</thead>
<tbody>
<tr>
<td>Type</td>
<td>4-cycle, Vertical, Turbo-charged intercooled diesel engine</td>
</tr>
<tr>
<td>Displacement</td>
<td>6.143 L</td>
</tr>
</tbody>
</table>
| Rated output (kW/mhp/krpm) | S: 374/509/12700  
L: 341/464/12700 |
| Emission | IMO Tier II |
| Fuel consumption (g/kW-hr) | S: 212 [at rated output]  
L: 211 [at rated output] |
| Direction of rotation | Counter-clockwise viewed from stern (crankshaft) |
| Combustion system | Direct injection |
| Cooling system | With heat exchanger |
| Cooling fresh water capacity | 455 [3.4 L (reservoir tank)] |
| Lubricating oil capacity | 33 L (standard sum)/32 L (shallow sum) |
| Lubricating oil grade | SAE 15W-40 |
| Starting system | Electric starting motor (DC 24V-3kW) |
| Flywheel housing size (mm) | SAE 83 and 11/12 |
| Dry weight (kg) | 856 |

Marine Gear Specifications

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>6CXBM-GT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine gear model</td>
<td>YK75</td>
</tr>
<tr>
<td>Type</td>
<td>Hydraulic multi-disc clutch</td>
</tr>
</tbody>
</table>
| Reduction ratio | 2.07  
2.91 |
| Direction of rotation | Clockwise or Counter-clockwise viewed from stern |
| Dry weight (kg) | 204 |

Dimensions (Unit: mm)

- with optional shallow oil sump
- Engine only / Front view
- Engine only / Left side view
- With YK75 gearbox / Rear view
- With YK75 gearbox / Right side view

Performance Curves

- 6CXBM-GT (S-rating)
- 6CXBM-GT (L-rating)

Detail of Instrument panel (Unit: mm)

- Switch unit (Key switch, Alarm buzzer, Alarm lamp unit, Alarm monitor device, Switching, Clock unit)
- Indicator unit (Engine speed, Oil pressure, Coolant temperature, etc.)
- Alarm lamp unit (Alarm indicator, Alarm buzzer)
- Alarm monitor device (Oil pressure, Coolant temperature, etc.)

IMO Tier II Compliant
Mechanical Engine Control
SOLAS Option

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YANMAR, Providing Quality Propulsion Engine Packages for Over 60 Years.

**Performance**

Good Fuel Economy together with Lower Emissions

The micro-sized multiple holes in the all-new injectors produce an even finer fuel-oil mist and combined with new perfectly matched combustion chambers and new cylinder head shapes, produce even more power. It is power delivered smoothly, due to optimum combustion conditions being maintained across a far wider operating range. And it leads directly to the bonus of lower exhaust emissions and lower fuel consumption. The boost compensator dramatically reduces black smoke under hard acceleration.

509hp (341kW) at 2700rpm in the S operating mode
509hp (374kW) at 2700rpm in the L operating mode

**High Torque**

Excellent Torque-Rise Characteristics in High Speed and High Load Range Enable Stable Performance of Job Duties even at High Load

The Engine Performance Gives Following Advantages:
1. The engine torque-rise characteristics having much in reserve, ~Stable cruising with least speed reduction against sudden load changes.
2. Wide Max. Power Range, (Line A) ~A wide range propeller matching, from the passenger ship (light/medium duty) to tug boat (heavy duty), is possible.
3. Min. Fuel Consumption Range is Wide, (Line B) ~Economical with wide min. fuel consumption range both during cruising or performing job duties. *FOC: Fuel Oil Consumption
4. Wide Medium Load Range, (Line C) ~ Produces stable engine performance even doing other job duties.

**Toughness**

Purpose built marine engine with replaceable cylinder liners, water cooled exhaust manifold and type approved.

- The fatique strength of piston-pin- bosses is improved by using the load.
- The fatigue strength against cylinder pressure & torsional vibration is improved by raising the pin diameter.

**Lower Down Time**

Easier Routine Inspection, Easier Maintenance.

Large inspection windows on the side of the block allow in-sight of piston-pin-bosses. Lube Oil filter is easy-to-replace cartridge type. Full mechanical engine management avoids the chance of delicate and expensive electronics falling in hot, marine engine room conditions. 500 hours service interval.

**High capacity front PTO**

Front drive shaft equipment without
- Belt-driven without an outer bearing
- Belt-driven with a rubber coupling and outer bearing
- Pulley-driven with a rubber coupling, steadily rotating V-pulley
- Belt-driven with a rubber coupling
- Belt-driven with a rubber coupling and outer bearing
- Belt-driven with an outer bearing

For heavy duty applications.

- Damping of Fluctuating Torque
- High-performance coupling reduces the fluctuating torque that is input to the marine gear. They reduce rattling and prevent torsional vibration to protect the power transmission parts.

**YANMAR original marine gear**

that can be adapted to a wide range of applications

YANMAR provides our original gearbox, which enables us to supply total marine engineering & servicing to customers!

- **High-Performance Marine Gear**
  YANMAR’s original marine gear is designed to draw out best performance of YANMAR engines.
- **Cast iron Gear Case (Applied to YX75)**
  For heavy duty applications.
- **Damping of Fluctuating Torque**
  High-performance coupling reduces the fluctuating torque that is input to the marine gear. They reduce rattling and prevent torsional vibration to protect the power transmission parts.
- **Accessories**
  Optional Tooling Device. Propeller shaft half coupling (counter frange) supplied as standard.