Mechanical Engine Control

IMO Tier II Compliant

**6HA2M-WHT / 6HA2M-WDT**

- M-rating 257kW [ 350mhp ]
- M-rating 298kW [ 405mhp ]

**Engine Specifications**

<table>
<thead>
<tr>
<th>Model</th>
<th>6HA2M-WHT</th>
<th>6HA2M-WDT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>4-cylinder, Vert., Turbo-charged with Fresh water-cooled intercooler diesel engine</td>
<td></td>
</tr>
<tr>
<td>No. of cylinders, Bore × stroke</td>
<td>6 in-line, 130 × 165</td>
<td></td>
</tr>
<tr>
<td>Displacement</td>
<td>13,140 cc</td>
<td></td>
</tr>
<tr>
<td>Fuel consumption</td>
<td>M: 2111 at rated output</td>
<td>M: 2111 at rated output</td>
</tr>
<tr>
<td>Direction of rotation</td>
<td>Counterclockwise view from stern ( crankshaft )</td>
<td></td>
</tr>
<tr>
<td>Combustion system</td>
<td>Direct injection</td>
<td></td>
</tr>
<tr>
<td>Cooling system</td>
<td>Constant high temperature cooling with Heat exchanger</td>
<td></td>
</tr>
<tr>
<td>Cooling fresh water capacity</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Lubricating system</td>
<td>Forced lubrication with gear pump</td>
<td></td>
</tr>
<tr>
<td>Lubricating oil capacity</td>
<td>SAE30, 40</td>
<td></td>
</tr>
<tr>
<td>Starting system</td>
<td>Electric starting motor ( DC 24V )</td>
<td></td>
</tr>
<tr>
<td>Flywheel housing size</td>
<td>SAE: 41.14</td>
<td></td>
</tr>
<tr>
<td>Dry weight</td>
<td>1455 kg</td>
<td></td>
</tr>
</tbody>
</table>

**Marine Gear Specifications**

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>6HA2M-WHT</th>
<th>6HA2M-WDT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine gear model</td>
<td>YX-120</td>
<td>YX-120L</td>
</tr>
<tr>
<td>Reduction ratio</td>
<td>2.03</td>
<td>2.03</td>
</tr>
<tr>
<td>Prop. shaft speed at rated output</td>
<td>980</td>
<td>980</td>
</tr>
<tr>
<td>Direction of rotation</td>
<td>315</td>
<td>315</td>
</tr>
<tr>
<td>Dry weight</td>
<td>411 kg</td>
<td></td>
</tr>
</tbody>
</table>

**Dimensions**

- Engine only / Front view
- Engine only / Right side view
- With YX120 gearbox / Front view
- With YX120 gearbox / Left side view

**Performance Curves**

- 6HA2M-WHT (M rating)
- 6HA2M-WDT (M rating)

**Detail of instrument panel D-type**

- Switch unit
- Alarm lamp unit with Alarm monitor device
- Tachometer unit
- Sub meter unit

Note: All Data Subject to Change Without Notice.

YANMAR POWER TECHNOLOGY CO., LTD.

Large Power Products Business
1-1-1, Nagasubamachi, Amagasaki, Hyogo, Japan
Tel: +81-6489-8069 Fax: +81-6489-1082
yanmar.com

Fax: +81-6489-1082
Tel: +81-6489-8069
1-1-1, Nagasu-Higashidori, Amagasaki, Hyogo, Japan
Large Power Products Business
yanmar.com

Photograph may show optional equipment.
YANMAR, Providing Quality Propulsion Engine Packages for Over 60 Years.

Performance
405hp (298kW) at 1950rpm
This 165 mm long stroker 13 liter class diesel, with 24 valves, fresh water cooled intercooler.

350hp (257kW) at 1950rpm
This 165 mm long stroker 13 liter class diesel, with 12 valves, fresh water cooled intercooler.

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, (Line A)
   - Stable cruising with least speed reduction against sudden load changes.
2. Wide Max. Power Range, (Line B)
   - 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 C)
   - Economical with wide min. fuel consumption range both during cruising or performing job duties.
4. Wide Medium Load Range, (Line D)
   - Produces stable engine performance even doing other job duties.

Toughness
1. Low, stable LOC (Lubricating Oil Consumption) and long overhaul interval, thanks to tufftride treatment cylinder liner and nitrided stainless steel rings and the finely judged clearance between piston and liner.
2. Purpose built marine engine with long stroke, optimized flywheel weight, water cooled exhaust manifold and special treatment injection nozzle.
3. Type Approved by Class Societies.

Lower Down Time
Easier Routine Inspection, Easier Maintenance.
Large inspection windows on the side of the block allow in-situ replacement of pistons. Lube Oil filter is easy-to-replace cartridge type. Full mechanical engine management avoids the chance of delicate and expensive electronics failing in hot, marine engine room conditions. 500 hours service interval.

High capacity front PTO
Stable cruising with least speed reduction against sudden load changes.

Photograph may show optional equipment.

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.

Steel Made Gear Case
For heavy duty applications.

Easier Maintenance
A cartridge system is now used for the L.O. filter.

Damping of Fluctuating Torque
Proven, time tested, rubber block reduces the fluctuating torque that is input to the marine gear. It reduces settling and prevents torsional vibration to protect the power transmission parts.

Accessories
Optional Trolling Device. Propeller shaft half coupling (counter frange) supplied as standard.