PowerTech™
4045AFM85 Diesel Engine
Marine Propulsion Engine Specifications

Emissions
EPA Commercial Marine Tier 3
IMO MARPOL Annex VI Tier II Compliant

Dimensions shown in mm (in) may vary according to options selected. Contact your distributor for more information.

General Data (Based on Standard Option Configuration)

<table>
<thead>
<tr>
<th>Model</th>
<th>4045AFM85</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of cylinders</td>
<td>4</td>
</tr>
<tr>
<td>Displacement - L (cu in)</td>
<td>4.5 (275)</td>
</tr>
<tr>
<td>Bore and Stroke - mm (in)</td>
<td>107 x 127 (4.21 x 5.00)</td>
</tr>
<tr>
<td>Engine Type</td>
<td>In-line, 4-Cycle</td>
</tr>
<tr>
<td>Aspiration</td>
<td>Turbocharged and air-to-coolant aftercooled</td>
</tr>
</tbody>
</table>

Length maximum - mm (in) 1105 (43.5)
Length to rear face of flywheel housing - mm (in) 890 (35.0)
Flywheel housing SAE 3
Height - mm (in) 964 (37.9)
Height, crankshaft centerline to top - mm (in) 654 (25.7)
Height, crankshaft centerline to bottom - mm (in) 310 (12.2)
Weight, dry - kg (lb) 578 (1274)

Classification Societies
ABS,BV,CCS,CRS,DNV-GL,LR

* SOLAS and other accessories available. Contact your distributor for details.

Engine Specifications

<table>
<thead>
<tr>
<th>Performance ratings</th>
<th>Power kW (bhp)</th>
<th>Rated Speed (rpm)</th>
<th>Rated fuel consumption L/hr (gal/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>119 (160)</td>
<td>2300</td>
<td>33.2 (8.8)</td>
</tr>
<tr>
<td>M2</td>
<td>134 (180)</td>
<td>2400</td>
<td>36.9 (9.7)</td>
</tr>
<tr>
<td>M3</td>
<td>149 (200)</td>
<td>2500</td>
<td>44.2 (11.7)</td>
</tr>
<tr>
<td>M4</td>
<td>168 (225)</td>
<td>2600</td>
<td>48.6 (12.8)</td>
</tr>
</tbody>
</table>

Metric hp = Brake hp x 1.01387

Photographs may show non-standard equipment.
## Features and Benefits

### High Torque and Low Rated RPM
- High torque provides excellent vessel control and maneuverability. Lower rated propulsion RPM reduces vibration and noise for improved crew comfort.

### 4-Valve Cylinder Head
- Excellent airflow through 4-valve cylinder head delivers greater low-speed torque and better transient response time.

### High-pressure Common-rail (HPCR)
- The HPCR fuel system provides variable common-rail pressure, multiple injections, and higher injection pressures. It also controls fuel injection timing and provides precise control for the start, duration, and end of injection. Electronic transfer pump is self-priming for ease of maintenance.
- Provides high performance, excellent fuel economy, and low emissions.

### Water-cooled Exhaust Manifold
- Integrated components eliminate external hoses and fittings that can leak or break. Wet exhaust manifold creates a cooler and quieter environment for passengers and crew.

### Replaceable Cylinder Liners
- Replaceable wet-type cylinder liners are precision-machined and hardened for long life. Allows engine to be rebuilt to original specifications.

### Electronic Engine Control Unit (ECU)
- Advanced fault code diagnostics and customizable engine protections ensure reliability and uptime. Provides highly customizable features and trim to integrate your vessel.

### Integrated Heat Exchanger
- Integrated expansion tank, heat exchanger, and exhaust manifold reduce the chance of leaks. High-capacity heat exchanger provides reliable operation in adverse conditions.

### Keel-cooled or Heat Exchanger
- Closed cooling system in keel-cooled engine option eliminates the need for a sea strainer, seawater pump, or anodes. Heat exchanger option offers a lighter, more compact, and simpler engine installation.

### Internal Balancers
- Internal balancers reduce engine noise and vibration for crew comfort. NOTE: John Deere 4045 engines only.

### Multiple Service Options
- Either-side oil fill/dipstick combinations and remote oil and fuel filter options are available for easier service access.