Marinediesel VGT450

336 bkW (450 bhp) @3600 rpm

All MarineDiesel VGT Common Rail engines are based on the Duramax 6.6L V8 configuration and are designed to be as compact and light weight as possible while maintaining durability as well as serviceability. The VGT450 is intended for light high speed vessels and has a light duty rating (medium duty as an option). Laptop based diagnostics tool is available for all VGT and TSC engines J1939 and NEMA2000 CAN communication.

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**General Data**

<table>
<thead>
<tr>
<th>Model</th>
<th>MD-VGT32</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of cyl</td>
<td>8</td>
</tr>
<tr>
<td>Bore and stroke mm</td>
<td>103/98</td>
</tr>
<tr>
<td>Displacement L</td>
<td>6.6</td>
</tr>
<tr>
<td>Compression ratio</td>
<td>16.8:1</td>
</tr>
<tr>
<td>Valves per cyl</td>
<td>4</td>
</tr>
<tr>
<td>Firing order</td>
<td>1-2-7-8-4-5-6-3</td>
</tr>
<tr>
<td>Combustion system</td>
<td>DI Common rail</td>
</tr>
<tr>
<td>Engine type</td>
<td>V8</td>
</tr>
<tr>
<td>Aspiration</td>
<td>Variable geometry turbo</td>
</tr>
<tr>
<td>Charge air cooling</td>
<td>Air to water</td>
</tr>
<tr>
<td>Engine crankcase vent syst</td>
<td>Closed</td>
</tr>
<tr>
<td>Max crankcase press kPa</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**Physical Data**

| Length mm              | 779     |
| Width mm               | 825     |
| Height mm              | 969     |
| Weight dry kg          | 450     |

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**Air System**

- Max intake restriction kPa: 6
- Engine air flow m3/min: 30
- Rec air intake pipe diam mm (min): 100
- Minimum intake air per eng (cm2): 600

**Cooling System**

- Cooling system: Closed cooling
- Closed system coolant flow L/min: 304
- Raw water pump flow L/min: 180
- Thermostat start to open °C: 7
- Thermostat fully open °C: 93
- Engine coolant capacity L: 18
- Recommended press cap psi: 16

**Fuel System**

- Fuel injection pump. Bosch common rail
- Governor regulation: 1%
- Governor type: Electronic

**Lubrication System**

- Maximum fuel transfer pump suction
- Distance of fuel m: 2.5
- Fuel filter micron size: 10

**Exhaust System**

- Oil pressure at 2000rpm – psi: 30-45
- Oil pressure at low idle – psi: 12
- In pan oil max temperature °C: 120
- Exhaust flow m3/min (max): 60
- Exhaust temperature °C(max): 700
- Max allowable exh backpress kPa: 7.5

**Electrical System**

- Recommended battery capacity CCA
- 12 volt system – amp: 050
- Maximum allowable start circuit resistance
- 12 volt system – ohm: 0.001

Marinediesel Marine propulsion applications. Revised data October 2009

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