Basic Engine Model Curve Number:
CPL Code: Date:
6.7 liter [408 in³] Rated Power: 169 kw [227 bhp, 230 mhp]
107 mm [4.21 in] Rated Speed: 3000 rpm
124 mm [4.88 in] Rating Type: Intermittent Duty
Displacement: 6.7 liter [408 in³] Aspiration: Turbocharged / Sea Water Aftercooled
Bore: 107 mm [4.21 in]
Stroke: 124 mm [4.88 in]
Cylinders: 6
Fuel System: HPCR Bosch CRIN 3.0

<table>
<thead>
<tr>
<th>Speed (rpm)</th>
<th>Full Throttle Power (kw)</th>
<th>Full Throttle Torque (N·m)</th>
<th>Propeller Demand Power (kw)</th>
<th>Propeller Demand Torque (N·m)</th>
<th>Fuel Consumption (L/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3075</td>
<td>169 (227)</td>
<td>525 (387)</td>
<td>169 (227.0)</td>
<td>539 (397.4)</td>
<td>47.1 (12.5)</td>
</tr>
<tr>
<td>3000</td>
<td>168 (225)</td>
<td>538 (397)</td>
<td>153 (205.0)</td>
<td>503 (371.3)</td>
<td>42.4 (11.2)</td>
</tr>
<tr>
<td>2900</td>
<td>166 (222)</td>
<td>565 (416)</td>
<td>138 (184.6)</td>
<td>469 (346.2)</td>
<td>37.9 (10.0)</td>
</tr>
<tr>
<td>2800</td>
<td>163 (219)</td>
<td>577 (426)</td>
<td>123 (165.5)</td>
<td>436 (321.9)</td>
<td>33.6 (9.9)</td>
</tr>
<tr>
<td>2700</td>
<td>161 (216)</td>
<td>590 (435)</td>
<td>110 (147.8)</td>
<td>405 (298.5)</td>
<td>30.5 (9.1)</td>
</tr>
<tr>
<td>2600</td>
<td>158 (212)</td>
<td>603 (445)</td>
<td>98 (131.4)</td>
<td>374 (276.0)</td>
<td>27.2 (8.1)</td>
</tr>
<tr>
<td>2500</td>
<td>155 (208)</td>
<td>616 (454)</td>
<td>87 (116.2)</td>
<td>345 (254.3)</td>
<td>24.2 (7.2)</td>
</tr>
<tr>
<td>2400</td>
<td>153 (206)</td>
<td>637 (470)</td>
<td>76 (102.3)</td>
<td>317 (233.6)</td>
<td>21.2 (6.6)</td>
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<tr>
<td>2300</td>
<td>150 (201)</td>
<td>651 (480)</td>
<td>67 (89.5)</td>
<td>290 (213.7)</td>
<td>18.5 (5.9)</td>
</tr>
<tr>
<td>2200</td>
<td>148 (196)</td>
<td>666 (491)</td>
<td>58 (77.9)</td>
<td>264 (194.7)</td>
<td>16.2 (5.2)</td>
</tr>
<tr>
<td>2100</td>
<td>146 (191)</td>
<td>674 (497)</td>
<td>50 (67.3)</td>
<td>239 (176.6)</td>
<td>14.1 (4.3)</td>
</tr>
<tr>
<td>2000</td>
<td>141 (189)</td>
<td>682 (500)</td>
<td>43 (57.7)</td>
<td>216 (159.4)</td>
<td>12.2 (3.7)</td>
</tr>
<tr>
<td>1900</td>
<td>136 (182)</td>
<td>687 (507)</td>
<td>37 (49.0)</td>
<td>194 (145.1)</td>
<td>10.7 (3.0)</td>
</tr>
<tr>
<td>1800</td>
<td>130 (174)</td>
<td>689 (508)</td>
<td>31 (41.3)</td>
<td>173 (127.6)</td>
<td>9.1 (2.6)</td>
</tr>
<tr>
<td>1700</td>
<td>123 (168)</td>
<td>691 (510)</td>
<td>26 (34.4)</td>
<td>153 (113.0)</td>
<td>7.7 (2.0)</td>
</tr>
<tr>
<td>1600</td>
<td>116 (155)</td>
<td>691 (510)</td>
<td>21 (28.4)</td>
<td>135 (99.4)</td>
<td>6.5 (1.7)</td>
</tr>
<tr>
<td>1500</td>
<td>109 (146)</td>
<td>691 (510)</td>
<td>17 (23.1)</td>
<td>117 (86.5)</td>
<td>5.5 (1.4)</td>
</tr>
<tr>
<td>1400</td>
<td>101 (136)</td>
<td>691 (510)</td>
<td>11 (14.5)</td>
<td>86 (63.6)</td>
<td>3.8 (1.0)</td>
</tr>
<tr>
<td>1300</td>
<td>94 (125)</td>
<td>691 (510)</td>
<td>6 (6.9)</td>
<td>50 (35.9)</td>
<td>2.6 (0.6)</td>
</tr>
<tr>
<td>1200</td>
<td>87 (116)</td>
<td>691 (510)</td>
<td>3 (4.3)</td>
<td>36 (26.3)</td>
<td>1.7 (0.4)</td>
</tr>
<tr>
<td>1100</td>
<td>65 (87)</td>
<td>620 (457)</td>
<td>1 (1.8)</td>
<td>22 (15.9)</td>
<td>1.0 (0.3)</td>
</tr>
</tbody>
</table>

Certified: This diesel engine complies with or is certified to the following agencies requirements:
- EPA Tier 3 - Model year requirements of the EPA marine regulation (40CFR1042)
- EU Stage IIIa - EC Nonroad Mobile Machinery Directive (2004/26/EC)
- IMO Tier II (Two) NOx requirements of International Maritime Organization (IMO), MARPOL 73/78 Annex VI, Regulation 13
**General Engine Data**

- **Engine Model**: QSB 6.7
- **Rating Type**: Intermittent Duty
- **Rated Engine Power**: 169 [227] kW [hp]
- **Rated Engine Speed**: 3000 rpm
- **Rated Power Production Tolerance**: ± 5%
- **Rated Engine Torque**: 831 [613] N·m [lb·ft]
- **Peak Engine Torque @ 1200 rpm**: 691 [510] N·m [lb·ft]
- **Brake Mean Effective Pressure**: 1560 [226] kPa [psi]
- **Indicated Mean Effective Pressure**: 1860 [270] kPa [psi]
- **Maximum Allowable Engine Speed**: 3075 rpm

**Maximum Continuous Torque Capacity from Front of Crank Specifications**

- **Maximum Torque Capacity from Front of Crank²**: 538 [397] N·m [lb·ft]
- **Compression Ratio**: 16.5:1
- **Piston Speed**: 12.4 [2441] m/sec [ft/min]
- **Firing Order**: 1-5-3-6-2-4

**Weight (Dry) - Engine With Heat Exchanger System - Average**: 658 [1450] kg [lb]

**Governor Settings**

- **Default Droop Value**: 0%
- **High Speed Governor Break Point**: 3075 rpm
- **Minimum Idle Speed Setting**: 550 rpm
- **Normal Idle Speed Variation**: ±10 rpm
- **High Idle Speed Range Minimum**: 3070 rpm
- **High Idle Speed Range Maximum**: 3080 rpm

**Noise and Vibration**

- **Average Noise Level - Top (Idle)**: 75 dBA @ 1m
- **Average Noise Level - Right Side (Idle)**: 75 dBA @ 1m
- **Average Noise Level - Left Side (Idle)**: 76 dBA @ 1m
- **Average Noise Level - Front (Idle)**: 76 dBA @ 1m
- **Average Noise Level - Top (Rated)**: 100 dBA @ 1m
- **Average Noise Level - Right Side (Rated)**: 100 dBA @ 1m
- **Average Noise Level - Left Side (Rated)**: 102 dBA @ 1m
- **Average Noise Level - Front (Rated)**: 101 dBA @ 1m

**Fuel System¹**

- **Avg. Fuel Consumption - ISO 8178 E3 Standard Test Cycle**: 32.2 [8.5] l/hr [gal/hr]
- **Fuel Consumption at Rated Speed**: 47.3 [12.5] l/hr [gal/hr]
- **Approximate Fuel Flow to Pump**: 215.8 [57.0] l/hr [gal/hr]
- **Maximum Allowable Fuel Supply to Pump Temperature**: 60.0 [140] °C [°F]
- **Approximate Fuel Flow Return to Tank**: 168.5 [44.5] l/hr [gal/hr]
- **Approximate Fuel Return to Tank Temperature**: 79.5 [175] °C [°F]
- **Maximum Heat Rejection to Drain Fuel**: 3.4 [194] kW [Btu/min]

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¹ Unless otherwise specified, all data is at rated power conditions and can vary ± 5%.
² No rear loads can be applied when the FPTO is fully loaded. Max PTO torque is contingent on torsional analysis results for the specific drive system. Consult Installation Direction Booklet for Limitations.
³ Heat rejection to coolant values are based on 50% water/50% ethylene glycol mix and do NOT include fouling factors. If sourcing your own cooler, a service fouling factor should be applied according to the cooler manufacturer's recommendation.
* Consult option notes for flow specifications of optional Cummins seawater pumps, if applicable.

CUMMINS INC.
COLUMBUS, INDIANA

All Data is Subject to Change Without Notice - Consult the following Cummins website for the most recent data: http://marine.cummins.com
## Propulsion Marine Engine Performance Data

**Curve No.** M-94135  
**DS:** D31-MX-2  
**CPL:** 3887  
**DATE:** 8-May-13

### Air System¹
- Intake Manifold Pressure .................................. kPa [in Hg] 115 [34]
- Intake Air Flow ........................................... l/sec [cfm] 267 [566]
- Heat Rejection to Ambient ..................................... kW [Btu/min] 14 [809.6]

### Exhaust System¹
- Exhaust Gas Flow .................................................. l/sec [cfm] 543 [1,151]
- Exhaust Gas Temperature (Turbine Out) ......................... °C [°F] 410 [770]
- Exhaust Gas Temperature (Manifold) ........................... °C [°F] 534 [992]

### Emissions (in accordance with ISO 8178 Cycle E3)
- NOx (Oxides of Nitrogen) ........................................ g/kw hr [g/hp·hr] 4.60 [3.43]
- HC (Hydrocarbons) .................................................. g/kw hr [g/hp·hr] 0.20 [0.15]
- CO (Carbon Monoxide) ............................................. g/kw hr [g/hp·hr] 0.64 [0.48]
- PM (Particulate Matter) .......................................... g/kw hr [g/hp·hr] 0.07 [0.05]
- CO₂ (Carbon dioxide) .......................................... g/kw hr [g/hp·hr] 721.00 [537.65]

### Cooling System¹
- Sea Water Pump Specifications .................................. MAB 0.08.17-07/16/2001
  - Pressure Cap Rating ........................................... kPa [psi] 110 [16]
  - Max. Coolant Outlet Pressure from the Engine ................ kPa [psi] 414 [60]
  - Max. Pressure Drop Across Any External Cooling System Circuit ............. kPa [psi] 0 [0]

### Sea Water Aftercooled Engine (SWAC)
- Standard Thermostat Operating Range (Start to Open) .................... °C [°F] 71 [160]
- Standard Thermostat Operating Range (Full Open) ........................ °C [°F] 83 [182]

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TBD= To Be Determined  
N/A = Not Applicable  
N.A. = Not Available

1. Unless otherwise specified, all data is at rated power conditions and can vary ± 5%.
2. No rear loads can be applied when the FPTO is fully loaded. Max PTO torque is contingent on torsional analysis results for the specific drive system. Consult Installation Direction Booklet for Limitations.
3. Heat rejection to coolant values are based on 50% water/50% ethylene glycol mix and do NOT include fouling factors. If sourcing your own cooler, a service fouling factor should be applied according to the cooler manufacturer's recommendation.
4. Consult option notes for flow specifications of optional Cummins seawater pumps, if applicable.

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