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)
- IMO Tier II (Two) NOx requirements of International Maritime Organization (IMO), MARPOL 73/78 Annex VI, Regulation 13
- RCD - meets the requirements of the Recreational Craft Directive 94/25/EC as amended by 2003/44/EC in accordance with ISO 8178-1

Rated Conditions: Ratings are based upon ISO 15550 reference conditions; air pressure of 100 kPa [29.612 in Hg], air temperature 25deg. C [77 deg. F] and 30% relative humidity. Member NMMA. Unless otherwise specified, tolerance on all values is +/-5%. Values from engine control modules and displayed on instrument panels are not absolute. Tolerance varies, but is generally less than +/-5% when operating within 30% of rated power.

Full Throttle curve represents power at the crankshaft for mature gross engine performance corrected in accordance with ISO 15550. Propeller Curve represents approximate power demand from a typical propeller. Propeller Shaft Power is approximately 3% less than rated crankshaft power after typical reverse/reduction gear losses and may vary depending on the type of gear or propulsion system used.

Fuel Consumption is based on fuel of 35 deg. API gravity at 16 deg C [60 deg. F] having LHV of 42,780 kj/kg [18390 Btu/lb] and weighing 838.9 g/liter [7.001 lb/U.S. gal].

High Output (HO): Intended for use in variable load applications where full power is limited to one hour out of every eight hours of operation. Also, reduced power must be at or below 300 rpm of the maximum rated rpm. This power rating is for pleasure/non-revenue generating applications that operate 500 hours per year or less.

* Cummins Full Throttle Requirements:
- Engine achieves or exceeds rated rpm at full throttle under any steady operating condition
- Engine achieves or exceeds rated rpm when accelerating from idle to full throttle
General Engine Data

Engine Model: QSB6.7 380HO
Rating Type: High Output
Rated Engine Power: 280 [375] kW [hp]
Rated Engine Speed: 3000 rpm
Rated Power Production Tolerance: ±5%
Rated Engine Torque: 890 [657] N·m [lb·ft]
Peak Engine Torque @ 2000 rpm: 1335 [985] N·m [lb·ft]
Brake Mean Effective Pressure: 1672 [242] kPa [psi]
Indicated Mean Effective Pressure: 1672 [242] kPa [psi]
Maximum Allowable Engine Speed: 3075 rpm

Maximum Continuous Torque Capacity from Front of Crank Specifications

Maximum Torque Capacity from Front of Crank²: 891 [657] 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: 662 [1460] 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

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

Fuel System¹

Fuel Consumption at Rated Speed: 73.9 [19.5] l/hr [gal/hr]
Approximate Fuel Flow to Pump: 215.8 [57.0] l/hr [gal/hr]
Maximum Allowable Fuel Supply to Pump Temperature (D2 Fuel): 70.1 [158] °C [°F]
Approximate Fuel Flow Return to Tank: 141.9 [37.5] l/hr [gal/hr]
Approximate Fuel Return to Tank Temperature: 79.5 [175] °C [°F]
Maximum Heat Rejection to Drain Fuel: 2.9 [163] kW [Btu/min]

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.
⁵ May not be at rated load and speed. Maximum heat rejection may occur at other than rated conditions.
Propulsion Marine Engine Performance Data

Air System¹
Intake Manifold Pressure .......................................................... kPa [in Hg] 223 [66]
Intake Air Flow ........................................................................ l/sec [cfm] 432 [915]
Heat Rejection to Ambient ....................................................... kW [Btu/min] 22 [1255]

Exhaust System¹
Exhaust Gas Flow ................................................................. l/sec [cfm] 805 [1,705]
Exhaust Gas Temperature (Turbine Out) ......................................... °C [°F] 350 [662]
Exhaust Gas Temperature (Manifold) ........................................... °C [°F] 536 [996]

Emissions (in accordance with ISO 8178 Cycle E3)
NOx (Oxides of Nitrogen) .................................................. g/kw hr [g/hp·hr] 4.77 [3.55]
HC (Hydrocarbons) ................................................................. g/kw hr [g/hp·hr] 0.12 [0.09]
CO (Carbon Monoxide) ............................................................ g/kw hr [g/hp·hr] 0.73 [0.54]
PM (Particulate Matter) ............................................................ g/kw hr [g/hp·hr] 0.10 [0.07]
CO2 (Carbon dioxide) .............................................................. g/kw hr [g/hp·hr] 688.75 [513.60]
CH4 (Methane) ........................................................................ g/kw hr [g/hp·hr] 0.006 [0.00]

Emissions (in accordance with ISO 8178 Cycle E5)
NOx (Oxides of Nitrogen) .................................................. g/kw hr [g/hp·hr] 4.91 [3.66]
HC (Hydrocarbons) ................................................................. g/kw hr [g/hp·hr] 0.13 [0.10]
CO (Carbon Monoxide) ............................................................ g/kw hr [g/hp·hr] 0.76 [0.57]
PM (Particulate Matter) ............................................................ g/kw hr [g/hp·hr] 0.10 [0.07]
CO2 (Carbon dioxide) .............................................................. g/kw hr [g/hp·hr] 701.80 [523.33]
CH4 (Methane) ........................................................................ g/kw hr [g/hp·hr] 0.006 [0.00]

Cooling System¹
Sea Water Pump Specifications ................................................. MAB 08.17-07/16/2001
Pressure Cap Rating (With Heat Exchanger Option) ...................... kPa [psi] 103 [15]
Max. Coolant Outlet Pressure from the Engine .............................. kPa [psi] 414 [60]

Sea Water Aftercooled Engine (SWAC)
Standard Thermostat Operating Range (Start to Open) ....................... °C [°F] 71 [160]
Standard Thermostat Operating Range (Full Open) ............................ °C [°F] 82 [160]

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.
⁵ May not be at rated load and speed. Maximum heat rejection may occur at other than rated conditions.

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COLUMBUS, INDIANA

All Data is Subject to Change Without Notice - Consult the following Cummins Web site for the most recent data: http://marine.cummins.com/