



CUMMINS MERCUISER DIESEL
 Charleston, SC 29405
Marine Performance Curves

Basic Engine Model
QSC8.3-600 GS

Curve Number:
M-91938

Engine Configuration
D413038MX03

CPL Code:
0906

Date:
24-Jul-07

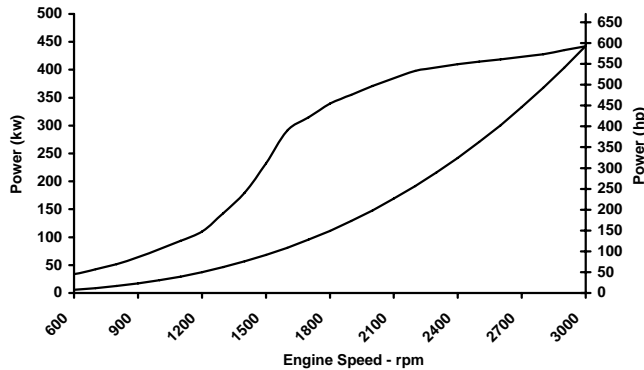
Displacement: **8.3 liter** [505 in³]
 Bore: **114 mm** [4.49 in]
 Stroke: **135 mm** [5.31 in]
 Fuel System: **HPCR**
 Cylinders: **6**

kW [bhp, mhp] @ rpm
 Advertised Power: **442 [593, 600] @ 3000**

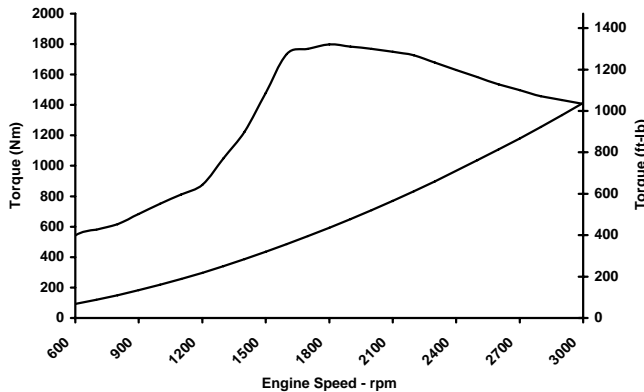
Aspiration: **Turbocharged / Sea Water Aftercooled**
 Rating Type: **Government Service**

CERTIFIED: This marine diesel engine is certified to the model year requirements of EPA Marine Tier 2 per 40 CFR 94 and conforms with the NOx requirements of the International Maritime Organization (IMO), MARPOL 73/78 Annex VI, Regulation 13 as applicable.

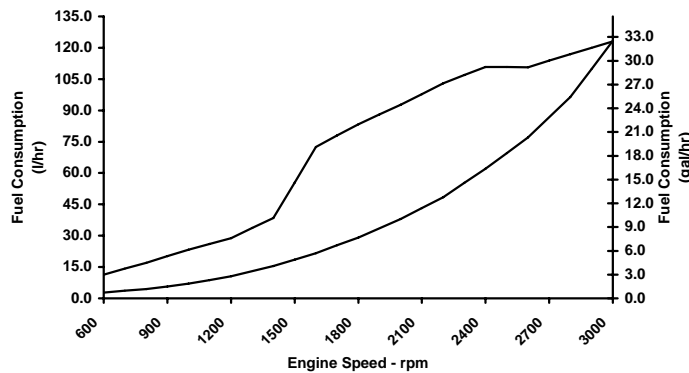
RATED POWER OUTPUT CURVE



FULL LOAD TORQUE CURVE



FUEL CONSUMPTION - PROP CURVE



Rated Conditions: Ratings are based upon ISO 8665 and SAE J1228 reference conditions; air pressure of 100 kPa [29.612 in Hg], air temperature 25deg. C [77 deg. F] and 30% relative humidity. Power is in accordance with IMCI procedure. Member NMMA.

Rated Curves (upper) represents rated power at the crankshaft for mature gross engine performance capabilities obtained and corrected in accordance with ISO 3046. Propeller Curve (lower) is based on a typical fixed propeller demand curve using a 3.0 exp

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]

Government Service Rating: This Rating is for use in variable load applications where full power is limited to one (1) hour out of every eight (8) hours of operation. Also, reduced power must be at or below 200 RPM of the maximum rated RPM. This rating is only for use in National, State, or Local government non-revenue producing applications.

James D. Kuhlman

CHIEF ENGINEER

Propulsion Marine Engine Performance Data

Curve No. M-91938
DS : 3038
CPL : 0906
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Exhaust System¹

Exhaust Gas Flow	l/sec [cfm]	1336 [2830]
Exhaust Gas Temperature (Turbine Out)	°C [°F]	510 [950]
Exhaust Gas Temperature (Manifold)	°C [°F]	705 [1300]

Emissions (in accordance with ISO 8178 Cycle E3)

NOx (Oxides of Nitrogen)	g/kw-hr [g/hp-hr]	5.88 [4.38]
HC (Hydrocarbons)	g/kw-hr [g/hp-hr]	0.13 [0.09]
CO (Carbon Monoxide)	g/kw-hr [g/hp-hr]	0.44 [0.33]
PM (Particulate Matter)	g/kw-hr [g/hp-hr]	0.11 [0.08]

Cooling System¹

Sea Water After Cooled Engine

Sea Water Pump Specifications	MAB 0.08.17-07/16/2001	
Pressure Cap Rating.....	kPa [psi]	103 [15]
Thermostat Operating Range (Start to Open).....	°C [°F]	71 [160]
Thermostat Operating Range(Full Open).....	°C [°F]	81 [178]

TBD= To Be Determined

N/A = Not Applicable

N.A. = Not Available

¹ All Data at Rated Conditions.

² 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.

CUMMINS ENGINE COMPANY, INC
 COLUMBUS, INDIANA

All Data is Subject to Change Without Notice - Consult the following Cummins intranet site for most recent data:

<http://www.cummins.com>