

Bore: Stroke:

Displacement:

CUMMINS MERCRUISER DIESEL

Charleston, SC 29405

Marine Performance Curve

[4.72 in]

5.9 liter

102 mm

120 mm

Basic Engine Model: Curve Number: 6BTA5.9-M M-91260

Engine Configuration: CPL Code: Date: 22Sep05

Marine

Pg. No.

6B

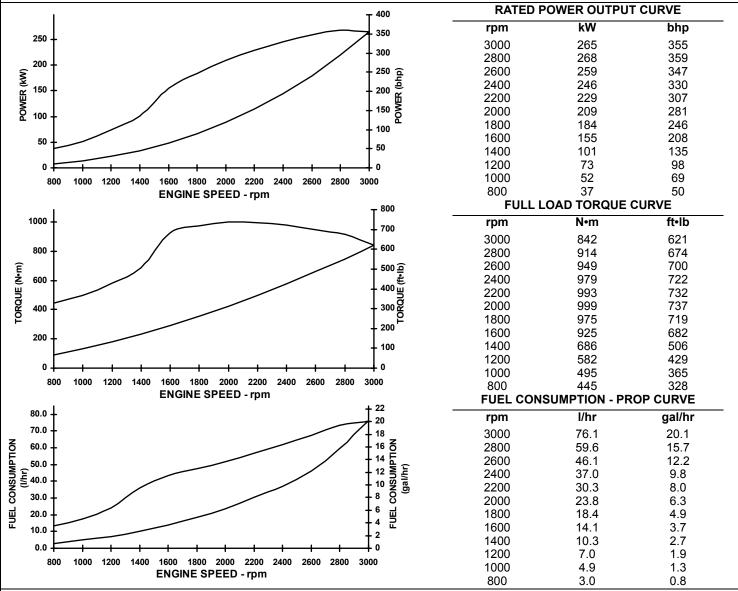
271

[359 in³] kW [bhp, mhp] @ rpm [4.02 in] Advertised Power: 265 [355, 370] @ 3000

Fuel System: Bosch P7100 Aspiration: Turbocharged/Aftercooled

Cylinders: 6 Rating Type: High Output

CERTIFIED: This marine diesel engine conforms with the NOx requirements of the International Maritime Organization (IMO), MARPOL 73/78 Annex VI, Regulation 13 as applicable.



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

Rated Curves (upper) represent 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 2.7 exponent. 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° API gravity at 16°C [60°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 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 operations must be at or below 200 RPM of the maximum rated RPM. This rating is for pleasure/non-revenue generating applications that operate 300 hours per year or less.

CHIEF ENGINEER

Marine Pg. No. **6B**

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Marine Engine Performance Data

Curve No.: M-91260

DS-4960 CPL: 8457 DATE: 22 Sep 05

General Engine Data

Engine Model Rating Type Rated Engine Power Rated Engine Speed Rated HP Production Tolerance Rated Engine Torque Rated Engine Rated Engine Rated Engine Speak Engine Rated Engine Rated Engine Rated Engine Rated Engine Rated Engine Rated Engine Power Rated Engine Power Rated Engine Rated Engine Power Rated Engine	6BTA5.9-M High Output 265 [355] 3000 5 842 [621] 992 [732] 1796 [261] N.A. 600 50 3275 3325
Maximum Allowable Engine Speedrpm	3350
Maximum Torque Capacity from Front of Crank ²	N.A.
Compression Ratio	15.3:1
Piston Speed	12 [2360]
Firing Order	1-5-3-6-2-4
Weight (Dry) Engine Only - Averagekg [lb]	533 [1175]
Weight (Drý) Engine With Heat Exchanger System - Averagekg [lb]	581 [1280]
Weight Tolerance (Dry) Engine Only	N.A.
Noise and Vibration	N.A
Average Noise Level - Top (Idle)	N.A. N.A.
Average Noise Level - Right Side (Idle)	N.A. N.A.
Average Noise Level - Left Side (Idle)	N.A. N.A.
(Nateu)	
Average Noise Level - Front (Idle)dBA @ 1m	N.A.
(Rated)dBA @ 1m	N.A.
Fuel System ¹	
Fuel Consumption @ Rated Speed	76 [20]
Approximate Fuel Flow to Pump	277 [73]
Maximum Allowable Fuel Supply to Pump Temperature	60 [140]
Approximate Fuel Flow Return to Tank	201 [53]
Approximate Fuel Return to Tank Temperature°C [°F]	46 [115]
Maximum Heat Rejection to Drain Fuel ⁴ kW [Btu/min]	1 [36]
Fuel Transfer Pump Pressure RangekPa [psi]	165-331 [24-48]
Fuel Rail Pressure Gauge kPaG [psig]	N/A
INSITEkPaA [psia]	N/A
Air System ¹	
Intake Manifold PressurekPa [in Hg]	210 [62]
Intake Air Flow	361 [765]
Heat Rejection to AmbientkW [Btu/min]	35 [2012]
	[]
Exhaust System ¹	
Exhaust Gas Flow	845 [1790]
Exhaust Gas Temperature Turbine Out°C [°F]	477 [890]
Manifold°C [°F]	666 [1230]

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

CUMMINS ENGINE COMPANY, INC. COLUMBUS, INDIANA

¹All Data at Rated Conditions

²Consult Installation Direction Booklet for Limitations

³Heat rejection 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.

⁴May not be at rated load and speed. Maximum heat rejection may occur at other than rated conditions.

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Emissions (in accordance with ISO 8178 Cycle E3)

NOx (Oxides of Nitrogen) g/kw·hr [g/hp·hr] HC (Hydrocarbons) g/kw·hr [g/hp·hr] CO (Carbon Monoxide) g/kw·hr [g/hp·hr] PM (Particulate Matter) g/kw·hr [g/hp·hr]	8.77 [6.54] N.A. N.A. N.A.
Cooling System ¹	
Sea Water Pump Specifications	103 [15]
Engines with Standard Aftercooling	
Coolant Flow to Engine Heat Exchanger/Keel Cooler	236 [62] 83 [181] 95 [203]
Heat Rejection to Engine Coolant ³ kW [Btu/min]	184 [10,500]

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