





Chongqing Cummins Engine Co. Ltd.

Auxiliary Marine Engine Performance Data

Curve No.: D(M)-804
DS: DS-D093641
CPL: CQ126
DATE: 11-Sep-08

General Engine Data¹

Engine Model.....	NTA855-D(M)
Rating Type	Prime Power Overload
Rated Engine Power..... hp [kW]	420 [313] 465 [347]
Governed Engine Speed.....rpm	1800 1800
Rated HP Production Tolerance.....	±2%
Rated Engine Torque.....lb. ft. [N·m]	1358 [1841]
Idle Speed Range..... rpm	575-650
Brake Mean Effective Pressure.....psi [kPa]	216 [1490] 239 [1652]
Compression Ratio	14.0:1
Piston Speed..... ft/min [m/sec]	1795 [9.12]
Friction Power.....hp [kW]	47 [35]

Fuel System¹

Fuel Consumption.....gal/hr [l/hr]	20.6 [78] 23 [86]
Approximate Fuel Flow to Pump.....gal/hr [l/hr]	62 [234] 68 [258]
Maximum Allowable Fuel Supply to Pump Temperature.....°F [°C]	160 [71]
Approximate Fuel Flow Return to Tank.....°F [°C]	N.A.
Fuel Rail Pressure.....psi [kPa]	181 [1247]

Weight¹

Dry - Engine Only	lb. [kg]	2896 [1315]
Dry - Engine With Heatexchanger	lb. [kg]	3128 [1420]
Installation Diagram No.....		4914572
Hookup Diagram & Drawing, electrical circuit No.....		4061349, 4061350

Air System¹

Intake Manifold Pressure.....in. Hg [kPa]	N.A.	58 [196]
Intake Air Flow.....cfm [l/sce]	949 [448]	981 [463]
Heat Rejection to Ambient.....BTU/min [kW]	2106 [37]	2391 [42]

Exhaust System¹

Exhaust Gas Flow.....cfm [l/sec]	2436 [1150]	2563 [1210]
Exhaust Gas Temperature (Turbine Out).....°F [°C]	871 [466]	900 [482]
Heat Rejection to Exhaust.....BTU/min [kW]	10644 [187]	11839 [208]

Cooling System¹

Sea Water Pump Specifications.....	MAB 0.08.17-07/16/2001
Pressure Cap Rating (With Heat Exchanger Option).....psi [kPa]	7 [50]

Engines without Low Temperature Aftercooler (LTA)

Jacket Water Aftercooled Engine (JWAC)

Coolant Flow to Engine Heat Exchanger.....gal/min [l/min]	62 [234]
Standard Thermostat Operating Range (Min).....°F [°C]	180 [82]
Standard Thermostat Operating Range (Max).....°F [°C]	201 [94]
Heat Rejection to Engine Coolant ²BTU/min [kW]	12750 [224] 14230 [250]

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).

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All Data is Subject to Change Without Notice - contact CCEC for most recent data .