

Rating Conditions: Ratings are in accordance with ISO-3046 reference conditions; air pressure at 100 kPa (29.61.in Hg.), air temperature 25°C (77°F), and 30% relative humidity. The fuel consumption data is based on GB252 No.0 diesel fuel (No. 2 diesel fuel in U.S.) weight at 0.85 kg/litre (7.1 lb/U.S. gal).

Power output curves are based on the engine operating with fuel system, water pump, and lubricating oil pump; not included are battery charging alternator, fan, optional equipment, and driven components.

Operation at Elevated Temperatures for sustained operation above 40°C (104°F), derate 2% per 11°C (1% per 10° **Prime Power Rating** is applicable for supplying continual electrical power at varied load. The following are the Prime Rating parameters:

* Prime Power is available for an unlimited number of hours per year in a variable load application. Variable load should not exceed a 70% average of the Prime Power rating during any operating period of 250 hours.

* The total operating time at 100% Prime Power shall not exceed 500 hours per year.

* There is a 10% overload capability for a period of 1 hour within a 12 hour period of operation. Total operating time at 10% overload shall not exceed 25 hours per year.



Chongqing Cummins Engine Co. Ltd.

Auxiliary Marine Engine Performance Data

	Curve No.: DS: CPL: DATE:	D(M)-862 DS-D093641 CQ126 17-Dec-08
General Engine Data ¹		
Engine Model	. NTA8	55-D(M)
Rating Type	Prime Power	Overload
Rated Engine Power hp [kW]	410 [306]	451 [337]
Governed Engine Speedrpm	1500	1500
Rated HP Production Tolerance	. ±2%	
Rated Engine Torquelb. ft. [N ⋅ m]	1437 [1948]	1582 [2145]
Idle Speed Range rpm	575-650	
Brake Mean Effective Pressurepsi [kPa]	253 [1749]	279 [1926]
Compression Ratio	. 14.0:1	
Piston Speed ft/min [m/sec]	1496 [7.6]	
Friction Powerhp [kW]	29 [22]	
Fuel System ¹ Fuel Consumptiongal/hr [l/hr] Approximate Fuel Flow to Pumpgal/hr [l/hr]		21 [79] 83 [316]
Maximum Allowable Fuel Supply to Pump Temperature°F [°C]		00[010]
Approximate Fuel Flow Return to Tank		62.6 [237]
Fuel Rail Pressure		233 [1605]
Weight 1 Dry - Engine Only Dry - Engine With Heatexchanger Installation Diagram No. Hookup Diagram & Drawing, electrical circuit No. Air System1 Intake Manifold Pressure Intake Air Flow. Lintake Air Flow. BTU/min [kW]	3106[1410] 491 4061349 N.A. 866 [409]	4572 4061350 56 [190] 930 [439] 2334 [41]
Exhaust System ¹		
Exhaust Gas Flowcfm [l/sec]		2309 [1090]
Exhaust Gas Temperature (Turbine Out)°F [°C]		928 [498]
Heat Rejection to ExhaustBTU/min [kW]	10473 [184]	11612 [204]
Cooling System ¹		
Sea Water Pump Specifications		
Pressure Cap Rating (With Heat Exchanger Option)psi [kPa]	7 [50]	
Engines without Low Temperature Aftercooler (LTA)		
Jacket Water Aftercooled Engine (JWAC)	50 5 4 0 5 1	
Coolant Flow to Engine Heat Exchanger		
Standard Thermostat Operating Range (Min)°F [°C]		
Standard Thermostat Operating Range (Max)°F [°C]		4 4000 5 0 40 5
Heat Rejection to Engine Coolant ³ BTU/min [kW]	12579 [221]	14002 [246]
TBD = To Be Determined N/A = Not Applicable 1. All Data at Rated Conditions. 2. Consult Installation Direction Results for Limitations	N.A	= Not Avaliable

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 .