





Chongqing Cummins Engine Co. Ltd.

Auxiliary Marine Engine Performance Data

Curve No.: D(M)-862
DS: DS-D093641
CPL: CQ126
DATE: 17-Dec-08

General Engine Data¹

Engine Model.....	NTA855-D(M)	
Rating Type	Prime Power	Overload
Rated Engine Power..... hp [kW]	410 [306]	451 [337]
Governed Engine Speed.....rpm	1500	1500
Rated HP Production Tolerance.....	±2%	
Rated Engine Torque.....lb. ft. [N·m]	1437 [1948]	1582 [2145]
Idle Speed Range..... rpm	575-650	
Brake Mean Effective Pressure.....psi [kPa]	253 [1749]	279 [1926]
Compression Ratio	14.0:1	
Piston Speed..... ft/min [m/sec]	1496 [7.6]	
Friction Power.....hp [kW]	29 [22]	

Fuel System¹

Fuel Consumption.....gal/hr [l/hr]	19 [72]	21 [79]
Approximate Fuel Flow to Pump.....gal/hr [l/hr]	76 [288]	83 [316]
Maximum Allowable Fuel Supply to Pump Temperature.....°F [°C]	160 [71]	
Approximate Fuel Flow Return to Tank..... gal/hr	57.1 [216]	62.6 [237]
Fuel Rail Pressure.....psi [kPa]		233 [1605]

Weight ¹

Dry - Engine Only	lb. [kg]	2863 [1300]
Dry - Engine With Heatexchanger	lb. [kg]	3106 [1410]
Installation Diagram No.....		4914572
Hookup Diagram & Drawing, electrical circuit No.....		4061349, 4061350

Air System¹

Intake Manifold Pressure.....in. Hg [kPa]	N.A.	56 [190]
Intake Air Flow.....cfm [l/sce]	866 [409]	930 [439]
Heat Rejection to Ambient.....BTU/min [kW]	2106 [37]	2334 [41]

Exhaust System¹

Exhaust Gas Flow.....cfm [l/sec]	2038 [962]	2309 [1090]
Exhaust Gas Temperature (Turbine Out).....°F [°C]	903 [484]	928 [498]
Heat Rejection to Exhaust.....BTU/min [kW]	10473 [184]	11612 [204]

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]	52 [195]	
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]	12579 [221]	14002 [246]

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).

CHONGQING CUMMINS ENGINE CO. LTD.

CHONGQING, P.R.CHINA, 400031

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