





# Chongqing Cummins Engine Co. Ltd.

## Propulsion Marine Engine Performance Data

Curve No.: M-194  
DS: DS-4962  
CPL: 0990  
DATE: 27-Aug-08

### General Engine Data

Engine Model.....	NTA855-M
Rating Type .....	Heavy Duty
Rated Engine Power..... hp [kW]	450 [ 336 ]
Rated Engine Speed.....rpm	1800
Peak Engine Torque @ rpm.....lb.·ft. [N·m]	N.A.
Brake Mean Effective Pressure.....psi [kPa]	232 [ 1600 ]
Minimum Idle Speed Setting..... rpm	575-650
Normal Idle Speed Variation.....±rpm	25
High Idle Speed Range Minimum..... rpm	1962
Maximum..... rpm	2106
Aspiration .....	Turbocharged/Aftercooled
Compression Ratio .....	14.5:1
Piston Speed..... ft/min [m/sec]	1791 [ 9.1 ]
Weight (Dry) - Engine Only - Average.....lb. [kg]	2870 [ 1303 ]
Weight (Dry) - Engine With HeatexchangerSystem - Average.....lb. [kg]	3150 [ 1430 ]
Installation Diagram No.....	4061314

### Fuel System<sup>1</sup>

Fuel Consumption at Rated Speed.....gal/hr [l/hr]	22 [ 83 ]
Approximate Fuel Flow to Pump.....gal/hr [l/hr]	66 [ 249 ]
Maximum Allowable Fuel Supply to Pump Temperature..... °F [ °C]	160 [ 71 ]
Approximate Fuel Return to Tank Temperature..... °F [ °C]	N.A.
Maximum Heat Rejection to Drain Fuel.....BTU/min [kW]	N.A.
Fuel Pressure - Pump Out / Rail Mechanical Gauge.....psi [kPa]	163 [ 1123 ]

### Air System<sup>1</sup>

Intake Manifold Pressure.....in. Hg [kPa]	58 [ 196 ]
Intake Air Flow.....cfm [l/sce]	932 [ 440 ]
Heat Rejection to Ambient.....BTU/min [kW]	2391 [ 42 ]

### Exhaust System<sup>1</sup>

Exhaust Gas Flow.....cfm [l/sec]	2097 [ 990 ]
Exhaust Gas Temperature (Turbine Out).....°F [ °C]	790 [ 421 ]
Exhaust Gas Temperature (Manifold).....°F [ °C]	1060 [ 571 ]

### Cooling System<sup>1</sup>

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]	70 [ 264 ]
Standard Thermostat Operating Range (Start to Open).....°F [ °C]	180 [ 82 ]
Standard Thermostat Operating Range (Full Open).....°F [ °C]	201 [ 94 ]
Heat Rejection to Engine Coolant <sup>3</sup> .....BTU/min [kW]	14344 [ 252 ]

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.

4. Consult option notes for flow specifications of optional Cummins seawater pumps (if applicable).

## CHONGQING CUMMINS ENGINE CO. LTD.

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