





Chongqing Cummins Engine Co. Ltd.

Propulsion Marine Engine Performance Data

Curve No.: M-631
DS: DS-4983
CPL: 0975
DATE: 18-Dec-08

General Engine Data

Engine Model.....	KT38-M
Rating Type	Continuous
Rated Engine Power..... hp [kW]	900 [671]
Rated Engine Speed.....rpm	1800
Peak Engine Torque @ rpm.....lb. · ft. [N · m]	N.A.
Brake Mean Effective Pressure.....psi [kPa]	171 [1177]
Minimum Idle Speed Setting..... rpm	575-675
Normal Idle Speed Variation.....±rpm	50
High Idle Speed Range Minimum..... rpm	1962
Maximum..... rpm	2200
Aspiration	Turbocharged
Compression Ratio	15.5:1
Piston Speed..... ft/min [m/sec]	1870 [9.5]
Weight (Dry) - Engine Only - Average.....lb. [kg]	7943 [3606]
Weight (Dry) - Engine With HeatexchangerSystem - Average	9817 [4457]
Installation Diagram No.....	4915140

Fuel System¹

Fuel Consumption at Rated Speed.....gal/hr [l/hr]	44 [166]
Approximate Fuel Flow to Pump.....gal/hr [l/hr]	132 [498]
Maximum Allowable Fuel Supply to Pump Temperature..... ° F [° C]	140 [60]
Approximate Fuel Return to Tank Temperature..... ° F [° C]	154 [68]
Maximum Heat Rejection to Drain Fuel.....BTU/min [kW]	N.A.
Fuel Pressure - Pump Out / Rail Mechanical Gauge.....psi [kPa]	134.0 [923]

Air System¹

Intake Manifold Pressure.....in. Hg [kPa]	34 [115]
Intake Air Flow.....cfm [l/sce]	1906 [900]
Heat Rejection to Ambient.....BTU/min [kW]	5009 [88]

Exhaust System¹

Exhaust Gas Flow.....cfm [l/sec]	4742 [2239]
Exhaust Gas Temperature (Turbine Out).....° F [° C]	932 [500]
Exhaust Gas Temperature (Manifold).....° F [° C]	1166 [630]

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]	400 [1513]
Standard Thermostat Operating Range (Start to Open).....° F [° C]	180 [82]
Standard Thermostat Operating Range (Full Open).....° F [° C]	203 [95]
Heat Rejection to Engine Coolant ³BTU/min [kW]	32672 [574]

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).

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