





Chongqing Cummins Engine Co. Ltd.

Propulsion Marine Engine Performance Data

Curve No.: M-628
DS: DS-4983
CPL: 0975
DATE: 19-Nov-08

General Engine Data

Engine Model.....	KT38-M
Rating Type	Continuous
Rated Engine Power..... hp [kW]	600 [448]
Rated Engine Speed.....rpm	1800
Peak Engine Torque @ 1500 rpm..... lb.·ft. [N·m]	1926 [2612]
Brake Mean Effective Pressure.....psi [kPa]	114 [786]
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]	31 [116]
Approximate Fuel Flow to Pump.....gal/hr [l/hr]	92 [348]
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]	81.5 [562]

Air System¹

Intake Manifold Pressure.....in. Hg [kPa]	21 [71]
Intake Air Flow.....cfm [l/sce]	1504 [710]
Heat Rejection to Ambient.....BTU/min [kW]	3415 [60]

Exhaust System¹

Exhaust Gas Flow.....cfm [l/sec]	3431 [1620]
Exhaust Gas Temperature (Turbine Out)..... °F [°C]	781 [416]
Exhaust Gas Temperature (Manifold)..... °F [°C]	1040 [560]

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]	200 [756]
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]	22313 [392]

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 .