





Chongqing Cummins Engine Co. Ltd.

Propulsion Marine Engine Performance Data

Curve No.: M-641
DS: DS-4983
CPL: 1542
DATE: 11-Dec-08

General Engine Data

Engine Model.....	KTA38-M2
Rating Type	Continuous
Rated Engine Power..... hp [kW]	1200 [895]
Rated Engine Speed..... rpm	1800
Peak Engine Torque @ 1500 rpm..... lb.·ft. [N·m]	3842 [5210]
Brake Mean Effective Pressure..... psi [kPa]	228 [1570]
Minimum Idle Speed Setting..... rpm	625-675
Normal Idle Speed Variation..... ±rpm	25
High Idle Speed Range Minimum..... rpm	1815
Maximum..... rpm	2016
Aspiration	Turbocharged/Aftercooled
Compression Ratio	13.9:1
Piston Speed..... ft/min [m/sec]	1870 [9.5]
Weight (Dry) - Engine Only - Average..... lb. [kg]	9291 [4218]
Weight (Dry) - Engine With HeatexchangerSystem - Average	9996 [4538]
Installation Diagram No.....	4061365

Fuel System¹

Fuel Consumption at Rated Speed..... gal/hr [l/hr]	59 [224]
Approximate Fuel Flow to Pump..... gal/hr [l/hr]	105 [397]
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]	171 [3]
Fuel Pressure - Pump Out / Rail Mechanical Gauge..... psi [kPa]	122.0 [841]

Air System¹

Intake Manifold Pressure..... in. Hg [kPa]	54 [183]
Intake Air Flow..... cfm [l/sce]	2599 [1227]
Heat Rejection to Ambient..... BTU/min [kW]	4440 [78]

Exhaust System¹

Exhaust Gas Flow..... cfm [l/sec]	6290 [2970]
Exhaust Gas Temperature (Turbine Out)..... °F [°C]	849 [454]
Exhaust Gas Temperature (Manifold)..... °F [°C]	N.A.

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]	335 [1268]
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 ³ BTU/min [kW]	32046 [563]

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 .