





Chongqing Cummins Engine Co. Ltd.

Auxiliary Marine Engine Performance Data

Curve No.: D(M)-644
DS: DS-4983
CPL: CQ606
DATE: 18-Dec-08

General Engine Data¹

Engine Model.....	KT38-D(M)	
Rating Type	Prime Power	Overload
Rated Engine Power..... hp [kW]	910 [679]	1000 [746]
Governed Engine Speed.....rpm	1800	1800
Rated HP Production Tolerance.....	±2%	
Rated Engine Torque.....lb. ft. [N·m]	2656 [3602]	2919 [3958]
Idle Speed Range..... rpm	575-650	
Brake Mean Effective Pressure.....psi [kPa]	173 [1191]	190 [1309]
Compression Ratio	15.5:1	
Piston Speed..... ft/min [m/sec]	1878 [9.54]	
Friction Power.....hp [kW]	170 [127]	

Fuel System¹

Fuel Consumption.....gal/hr [l/hr]	44.1 [167]	49 [184]
Approximate Fuel Flow to Pump.....gal/hr [l/hr]	176 [668]	194 [736]
Maximum Allowable Fuel Supply to Pump Temperature.....°F [°C]	140 [60]	140 [60]
Approximate Fuel Flow Return to Tank..... gal/hr	132 [501]	146 [552]
Fuel Rail Pressure.....psi [kPa]	151 [1040]	166 [1144]

Weight¹

Dry - Engine Only	lb. [kg]	8200 [3723]
Dry - Engine With Heatexchanger	lb. [kg]	8641 [3923]
Installation Diagram No.....		4915140
Hookup Diagram & Drawing, electrical circuit No.....		4061349, 4061350

Air System¹

Intake Manifold Pressure.....in. Hg [kPa]	39 [132]	43 [146]
Intake Air Flow.....cfm [l/sce]	2550 [1204]	2749 [1298]
Heat Rejection to Ambient.....BTU/min [kW]	6603 [116]	7286 [128]

Exhaust System¹

Exhaust Gas Flow.....cfm [l/sec]	6498 [3068]	7097 [3351]
Exhaust Gas Temperature (Turbine Out).....°F [°C]	972 [522]	986 [530]
Heat Rejection to Exhaust.....BTU/min [kW]	38250 [672]	41950 [737]

Cooling System¹

Coolant Flow to Engine Heat Exchanger/Keel Cooler		
Jacket Water Aftercooled Engines (JWAC)		
Coolant Flow to Main Cooler (with open thermostat).....l/min [gal/min]	409 [108]	
Standard Thermostat Operating Range (Min).....°F [°C]	180 [82]	
Standard Thermostat Operating Range (Max).....°F [°C]	199 [93]	
Heat Rejection to Engine Coolant ³BTU/min [kW]	26809 [471]	29541 [519]
Heat Rejection to LTA Coolant ³BTU/min [kW]	N.A.	
Sea Water Flow @ 10 psi Pump Discharge Pressurel/min [gal/min]	N.A.	
Pressure Cap Rating (With Heat Exchanger Option).....psi [kPa]	7 [50]	

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).

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