

Rating Conditions: Ratings are in accordance with ISO-3046 reference conditions; air pressure at 100 kPa (29.61.in Hg.), air temperature 25°C (77°F), and 30% relative humidity. The fuel consumption data is based on GB252 No.0 diesel fuel (No. 2 diesel fuel in U.S.) weight at 0.85 kg/litre (7.1 lb/U.S. gal).

Power output curves are based on the engine operating with fuel system, water pump, and lubricating oil pump; not included are battery charging alternator, fan, optional equipment, and driven components.

Operation at Elevated Temperatures for sustained operation above 40°C (104°F), derate 2% per 11°C (1% per 10° **Prime Power Rating** is applicable for supplying continual electrical power at varied load. The following are the Prime Rating parameters:

* Prime Power is available for an unlimited number of hours per year in a variable load application. Variable load should not exceed a 70% average of the Prime Power rating during any operating period of 250 hours.
* The total operating time at 100% Prime Power shall not exceed 500 hours per year.

* There is a 10% overload capability for a period of 1 hour within a 12 hour period of operation. Total operating time

at 10% overload shall not exceed 25 hours per year.



Chongqing Cummins Engine Co. Ltd.

Auxiliary Marine Engine Performance Data

LLEL			
		Curve No.: DS: CPL:	D(M)-460 DS-D193097 CQ411
General Engine Data ¹		DATE:	10-Sep-08
Engine Model		KTA1	9-D(M)
Rating Type			
Rated Engine Power			600 [448]
Governed Engine Speed			1800
Rated HP Production Tolerance	•		
Rated Engine Torque	lb.·ft. [N·m]	1534 [2080]	1753 [2377]
Idle Speed Range			
Brake Mean Effective Pressure	psi [kPa]	199 [1375]	
Compression Ratio			
Piston Speed	ft/min [m/sec]	1878 [9.54]	
Friction Power	hp [kW]		
1			
Fuel System ¹	10 10		
Fuel Consumption			30 [112.8]
Approximate Fuel Flow to Pump			
Maximum Allowable Fuel Supply to Pump Tem			
Approximate Fuel Flow Return to Tank Fuel Rail Pressure			477 [4000]
Fuel Rail Plessule		N.A.	177 [1220]
Weight ¹			
Dry - Engine Only	lb. [kg]	3996 [1814]	
Dry - Engine With Heatexchanger	lb. [kg]	4416[2005]	
Installation Diagram No		4914569	
Hookup Diagram & Drawing, electrical circuit I	No	4061349	4061350
Air System ¹			
Intake Manifold Pressure	in Ha [kPa]		50 [200]
Intake Air Flow			59 [200]
Heat Rejection to Ambient			
		0000[00]	
Exhaust System ¹			
Exhaust Gas Flow			
Exhaust Gas Temperature (Turbine Out)	°F [°C]	921 [494]	
Heat Rejection to Exhaust	BTU/min [kW]	17019 [299]	
Cooling System ¹			
Coolant Flow to Engine Heat Exchanger/Keel	Cooler		
At 3 psi Friction Head External to Engine		742 [196]	
At 10 psi Friction Head External to Engine			
Standard Thermostat Operating Range (Min).			
Standard Thermostat Operating Range (Mar).			
Heat Rejection to Engine Coolant ³			
Heat Rejection to LTA Coolant ³			
Sea Water Flow @ 10 psi Pump Discharge F			
Pressure Cap Rating (With Heat Exchanger C			
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TBD = To Be Determined	N/A = Not Applicable	N.A	. = Not Avaliable
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 .