

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

		Curve No.: DS: CPL: DATE:	D(M)-459 DS-D193097 CQ410 23-Oct-08
General Engine Data ¹			
Engine Model		KTA1	9-D(M)
Rating Type		Prime Power	Overload
Rated Engine Power	hp [kW]	600 [448]	675 [504]
Governed Engine Speed	rpm	1500	1500
Rated HP Production Tolerance		±2%	
Rated Engine Torque	lb.·ft. [N·m]	2103 [2852]	2366 [3208]
Idle Speed Range		625-700	
Brake Mean Effective Pressure	psi [kPa]	273 [1886]	308 [2122]
Compression Ratio		14.5:1	
Piston Speed		1565 [7.95]	
Friction Power	hp [kW]	60 [45]	
Fuel System ¹			
Fuel Consumption	gal/hr [l/hr]	29.1 [110]	32 [120]
Approximate Fuel Flow to Pump			70 [264]
Maximum Allowable Fuel Supply to Pump Te			
Approximate Fuel Flow Return to Tank			37 [140]
Fuel Rail Pressure			137 [944]
Weight ¹			
Dry - Engine Only			
Dry - Engine With Heatexchanger			
Installation Diagram No			
Hookup Diagram & Drawing, electrical circui	t No	4061349	4061350
Air System ¹			
Intake Manifold Pressure	in. Hg [kPa]	66 [223]	73 [247]
Intake Air Flow	cfm [l/sce]		1273 [601]
Heat Rejection to Ambient	BTU/min [kW]	3643 [64]	4041 [71]
Exhaust System ¹			
Exhaust Gas Flow	cfm [l/sec]	3166 [1495]	3505 [1655]
Exhaust Gas Temperature (Turbine Out)			1018 [548]
Heat Rejection to Exhaust		16621 [292]	18157 [319]
		10021[202]	
Cooling System ¹			
Coolant Flow to Engine Heat Exchanger/Kee			
At 3 psi Friction Head External to Engine			
At 8 psi Friction Head External to Engine			
Standard Thermostat Operating Range (Min		180 [82]	
Standard Thermostat Operating Range (Max		199 [93]	
Heat Rejection to Engine Coolant ³		15653 [275]	17361 [305]
Heat Rejection to LTA Coolant ³		N.A.	
Sea Water Flow @ 10 psi Pump Discharge			
Pressure Cap Rating (With Heat Exchanger	Option)psi [kPa]	7 [50]	
TBD = To Be Determined 1. All Data at Rated Conditions.	N/A = Not Applicable	N.A	= Not Avaliable

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 .