





Chongqing Cummins Engine Co. Ltd.

Auxiliary Marine Engine Performance Data

Curve No.: D(M)-462
DS: DS-D193097
CPL: CQ410
DATE: 21-Oct-08

General Engine Data¹

Engine Model.....	KTA19-D(M)	
Rating Type	Prime Power	Overload
Rated Engine Power..... hp [kW]	680 [507]	755 [563]
Governed Engine Speed.....rpm	1800	1800
Rated HP Production Tolerance.....	±2%	
Rated Engine Torque.....lb. ft. [N·m]	1984 [2690]	2203 [2987]
Idle Speed Range..... rpm	675-775	
Brake Mean Effective Pressure.....psi [kPa]	258 [1779]	286 [1975]
Compression Ratio	14.5:1	
Piston Speed..... ft/min [m/sec]	1878 [9.54]	
Friction Power.....hp [kW]	84 [63]	

Fuel System¹

Fuel Consumption.....gal/hr [l/hr]	32.5 [123]	36 [135]
Approximate Fuel Flow to Pump.....gal/hr [l/hr]	97 [367]	
Maximum Allowable Fuel Supply to Pump Temperature.....°F [°C]	140 [60]	
Approximate Fuel Flow Return to Tank.....gal/hr	64 [244]	
Fuel Rail Pressure.....psi [kPa]	119 [820]	145 [999]

Weight¹

Dry - Engine Only	lb. [kg]	3996 [1814]
Dry - Engine With Heatexchanger	lb. [kg]	4416 [2005]
Installation Diagram No.....		4914569
Hookup Diagram & Drawing, electrical circuit No.....		4061349, 4061350

Air System¹

Intake Manifold Pressure.....in. Hg [kPa]	69 [234]	76 [257]
Intake Air Flow.....cfm [l/sce]	1417 [669]	1500 [708]
Heat Rejection to Ambient.....BTU/min [kW]	4155 [73]	4611 [81]

Exhaust System¹

Exhaust Gas Flow.....cfm [l/sec]	3662 [1729]	3973 [1876]
Exhaust Gas Temperature (Turbine Out).....°F [°C]	914 [490]	950 [510]
Heat Rejection to Exhaust.....BTU/min [kW]	18841 [331]	20434 [359]

Cooling System¹

Coolant Flow to Engine Heat Exchanger/Keel Cooler		
At 3 psi Friction Head External to Engine	l/min [gal/min]	742 [196]
At 10 psi Friction Head External to Engine	l/min [gal/min]	662 [175]
Standard Thermostat Operating Range (Min).....	°F [°C]	180 [82]
Standard Thermostat Operating Range (Max).....	°F [°C]	199 [93]
Heat Rejection to Engine Coolant ³	BTU/min [kW]	17645 [310] 19524 [343]
Heat Rejection to LTA Coolant ³	BTU/min [kW]	N.A.
Sea Water Flow @ 10 psi Pump Discharge Pressure	l/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 .