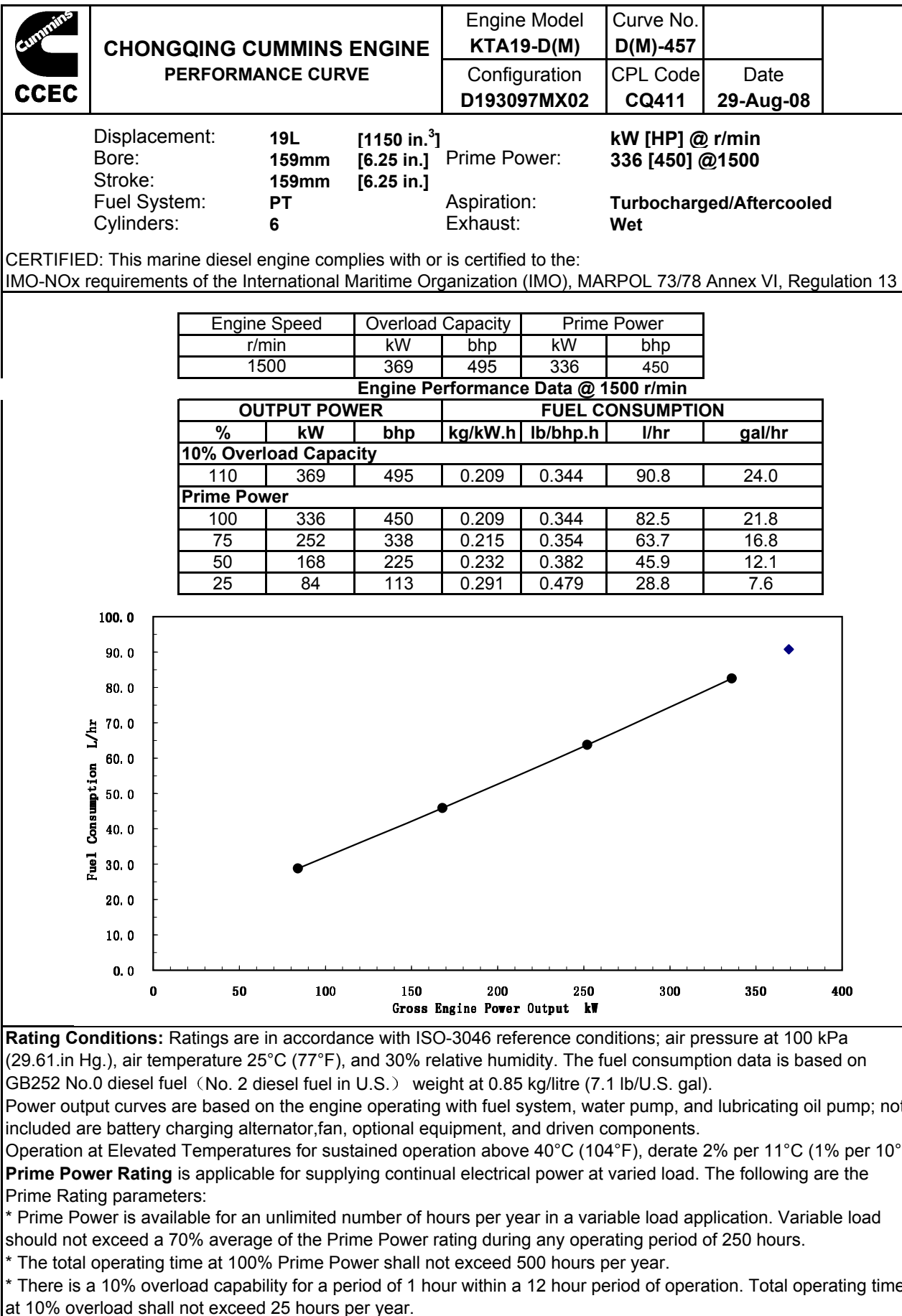






Chongqing Cummins Engine Co. Ltd.

Auxiliary Marine Engine Performance Data

Curve No.: D(M)-457
DS: DS-D193097
CPL: CQ411
DATE: 29-Aug-08

General Engine Data¹

Engine Model.....	KTA19-D(M)
Rating Type	Prime Power Overload
Rated Engine Power..... hp [kW]	450 [336] 495 [369]
Governed Engine Speed.....rpm	1500 1500
Rated HP Production Tolerance.....	±2%
Rated Engine Torque.....lb. ft. [N·m]	1732 [2349]
Idle Speed Range..... rpm	675-775
Brake Mean Effective Pressure.....psi [kPa]	205 [1415]
Compression Ratio	14.5:1
Piston Speed..... ft/min [m/sec]	1565 [7.95]
Friction Power.....hp [kW]	60 [45]

Fuel System¹

Fuel Consumption.....gal/hr [l/hr]	21.8 [82.5] 24 [90.8]
Approximate Fuel Flow to Pump.....gal/hr [l/hr]	104 [394]
Maximum Allowable Fuel Supply to Pump Temperature.....°F [°C]	N.A.
Approximate Fuel Flow Return to Tank.....°F [°C]	N.A.
Fuel Rail Pressure.....psi [kPa]	134 [923]

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]	N.A.	43 [146]
Intake Air Flow.....cfm [l/sce]	915 [432]	
Heat Rejection to Ambient.....BTU/min [kW]	2846 [50]	

Exhaust System¹

Exhaust Gas Flow.....cfm [l/sec]	2529 [1194]
Exhaust Gas Temperature (Turbine Out).....°F [°C]	975 [524]
Heat Rejection to Exhaust.....BTU/min [kW]	13604 [239]

Cooling System¹

Coolant Flow to Engine Heat Exchanger/Keel Cooler		
At 3 psi Friction Head External to Engine	l/min [gal/min]	613 [162]
At 8 psi Friction Head External to Engine	l/min [gal/min]	549 [145]
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]	11726 [206]
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).

CHONGQING CUMMINS ENGINE CO. LTD.

CHONGQING, P.R.CHINA, 400031

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