

## **CHONGQING CUMMINS ENGINE** PERFORMANCE CURVE

<b>Engine Model</b>	Curve No.	
KTA19-D(M)	D(M)-460	
Configuration	CPL Code	Date
D193097MX02	CQ411	10-Sep-08

Displacement: 19L [1150 in.<sup>3</sup>] kW [HP] @ r/min Prime Power: Bore: 159mm [6.25 in.] 392 [525] @1800

Stroke: 159mm [6.25 in.]

Fuel System: PT Aspiration: Turbocharged/Aftercooled

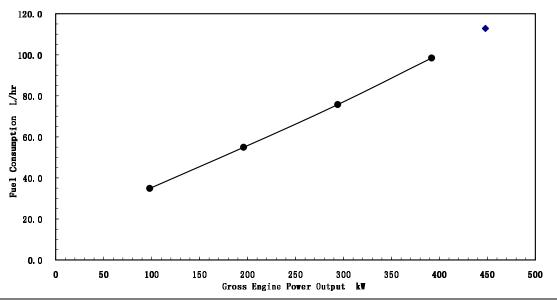
Cylinders: Exhaust: Wet

CERTIFIED: This marine diesel engine complies with or is certified to the:

IMO-NOx requirements of the International Maritime Organization (IMO), MARPOL 73/78 Annex VI, Regulation 13

Engine Speed	Overload Capacity		Prime Power				
r/min	kW	bhp	kW	bhp			
1800	448	600	392	525			
	Engine Performance Data @ 1800 r/min						

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OUTPUT POWER		FUEL CONSUMPTION				
%	kW	bhp	kg/kW.h	lb/bhp.h	l/hr	gal/hr
10% Over	load Capac	ity				
110	448	600	0.214	0.355	112.8	30.0
Prime Pov	wer					
100	392	525	0.213	0.352	98.4	26.0
75	294	394	0.219	0.361	75.7	20.0
50	196	263	0.238	0.392	54.9	14.5
25	98	131	0.302	0.498	34.8	9.2



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.