

## CHONGQING CUMMINS ENGINE PERFORMANCE CURVE

 Engine Model
 Curve No.

 KTA19-D(M)
 D(M)-461

 Configuration
 CPL Code
 Date

 D193097MX02
 CQ412
 21-Oct-08

Displacement: 19L [1150 in.³] kW [HP] @ r/min Bore: 159mm [6.25 in.] Prime Power: 463 [620] @1800

Stroke: 159mm [6.25 in.]

Fuel System: PT Aspiration: Turbocharged/Aftercooled

Cylinders: 6 Exhaust: Dry

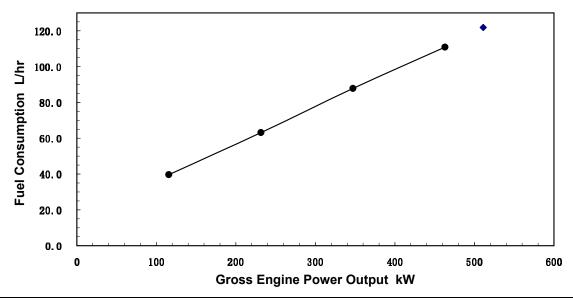
CERTIFIED: This marine diesel engine complies with or is certified to the:

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	511	685	463	620

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	511	685	0.203	0.332	121.9	32.0		
Prime Pov	wer							
100	463	620	0.204	0.336	110.9	29.3		
75	347	465	0.215	0.354	87.8	23.2		
50	232	310	0.232	0.382	63.2	16.7		
25	116	155	0.291	0.480	39.6	10.5		



**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.