

**Shanghai Cummins Trade Co., Ltd.**

Shanghai, China, 200030

Marine Performance Curves

Basic Engine Model:

B3.9CMI164G

Curve Number:

FR96902

Engine Configuration:

D403074MX03

CPL Code:

CPL5572

Date:

16-Apr-19Displacement: **3.9 liter** [239 in³]Bore: **102 mm** [4.02 in]Stroke: **120 mm** [4.72 in]Fuel System: **HPCR**Cylinders: **4**Advertised Power: **47[63]@1500** kW [hp] @ rpmAspiration: **Turbocharged/Aftercooled**Exhaust Type: **Dry**

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

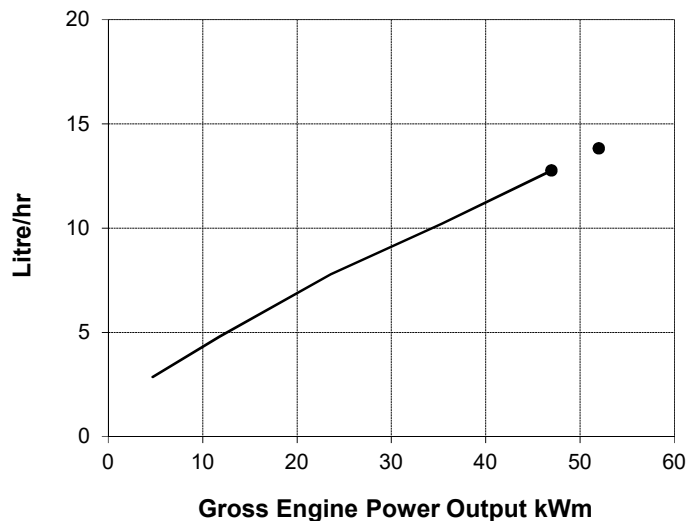
China Marine Emission Regulation Stage II GB15097-2016

IMO Tier II (Two) NOx requirements of International Maritime Organization (IMO), MARPOL 73/78 Annex VI, Regulation 13

Engine Speed	Overload Capacity		Prime Power		Continuous Power	
RPM	kWm	BHP	kWm	BHP	kWm	BHP
1500	52	69	47	63	N.A.	N.A.

Engine Performance Data @ 1500 rpm

OUTPUT POWER			FUEL CONSUMPTION			
%	kWm	BHP	g/kWh	Lb/ BHP-h	Liter/ hour	U.S. Gal/ hour
10% OVERLOAD CAPACITY						
110%	52	69	224	0.373	13.8	3.65
PRIME POWER						
100%	47	63	228	0.379	12.8	3.37
75%	35	47	243	0.405	10.2	2.70
50%	24	32	277	0.463	7.8	2.06
25%	12	16	341	0.569	4.8	1.27
10%	5	6	512	0.854	2.9	0.76
CONTINUOUS POWER						
80%	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.



Rating Conditions: Ratings are in accordance with ISO 15550 and ISO 8528-5 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 No. 2 diesel fuel weight at 0.84 kg/liter (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.

Unless otherwise specified, all data is at rated power conditions and can vary $\pm 5\%$.

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 80% 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.



TECHNICAL DATA DEPT.

APPLICATION ENGINEER