

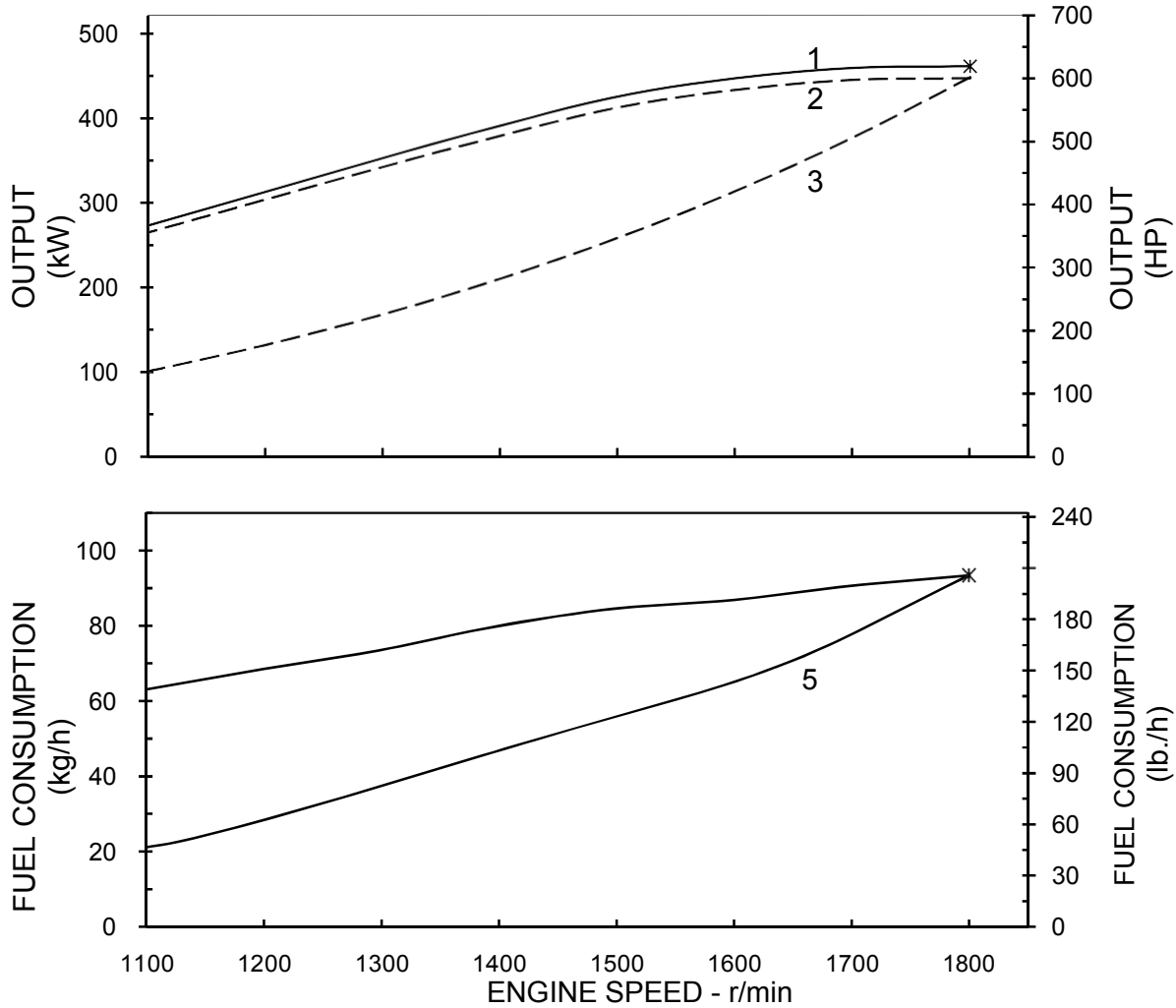


**CHONGQING CUMMINS
ENGINE
PERFORMANCE CURVE**

Engine Model K19-M	Curve No. M-489	
Configuration D193080MX02	CPL Code CQ415	Date 31/May/11

Displacement: **19L** [1150 in.³ Advertisd Powe **447kW [600HP] @1800 r/min**
 Bore: **159mm [6.25 in.]**
 Stroke: **159mm [6.25 in.]** Aspiration: **Turbocharged/Aftercooled**
 Fuel System: **PT** Rating Type: **Continuous**
 Cylinders: **6**

CERTIFIED: This marine diesel engine complies with or is certified to the:
 IMO Tier II(Two)NOx requirements of International Maritime Organization(IMO),MARPOL 73/78 Annex VI,Regulation 13



Rating Conditions:Ratings are based upon ISO 8665 and SAE J1228 reference conditions;air pressure of 100kPa [29.612 in.Hg] air temperature 50°C and 30% relative humidity.Power is rated in accordance with IMCI prodedures.

Engine will be able to give continous rating at 442kw at ambient temperature 50°C

Fuel consumption is based on fuel of 35° API gravity at 16°C (60°F) having LHV of 42,780 kj/kg (18,390 Btu/lb) and weighing 838.9 g/liter (7.001 lb/U.S.gal).

Propeller Shaft Power represents the net power available after typical reverse/reduction gear losses and is 97% of rated power.

- 1. Brake power
- 2. Shaft power with Reverse /Reduction Gear
- 3. Typical Propeller Power Curve (2.7 exponent)
- 4. Fuel Consumption for Brake and Shaft power.
- 5. Fuel Consumption for Typical Propeller.

Continuous Rating: This power rating is intended for continuous use in applications requiring uninterrupted service at full power. This rating is an ISO3046 Standard Power Rating.

Electronics:

24V standard electrical system with 12 V option.

Lubrication system:

72L (19gal)

Starting system :

Electrical starter 32V

Alternator 32V 60A

Exhaust System:

Exhaust Gas Flow.....	_____ cfm [l/sec]	3440 [1624]
Exhaust Gas Temperature (Turbine Out)	°F [°C]	781 [416]
Exhaust Gas Temperature (Manifold).....	°F [°C]	1029 [554]

Engine Room / Instrument Panel

1* Engine Instrument Panel, Engine family K19.

Remote Display

1* Display, mounting type remote

Paint

Marine Gray and gray primer