

Marine Propulsion Engine M216C & M190C

1106 Series

These are the latest addition to the common platform concept of 1100 Series diesel engines. Assembled on a new high technology production line, these ultra clean engines will provide a superior replacement for all marine six cylinder models. Frequent computerised checks during the production process ensure high build quality excellence is maintained.

The new engines boast considerable increases to delivered power, torque and noise reduction. These have been achieved through changes to combustion areas, turbocharger geometry, increased cylinder displacement and significantly, the inclusion of a high pressure, common rail fuel system. These new engines incorporate components of Caterpillar ACERT™ technology.

A complete fuel system, air cleaner and heat exchanger is supplied as standard. Choice is provided to customers through the availability of a large variety of standard specifications incorporating a choice of alternator and front PTO.

Powered By Your Needs

These engines offer a choice of standard build configurations to match the needs of customers for a diverse range of applications.

World Class Product Support

At Perkins we are constantly researching, developing and investing in our products and services. Total worldwide support is provided through a network of over 130 distributors and service outlets in 184 countries, providing access to over 50,000 parts and exchange units 24 hours a day, 365 days a year.

Lower Operating Costs

Service intervals 500 hours as standard and Perkins provides comprehensive warranty cover for 2 years, with 3 years on major engine components.

State Of The Art Design

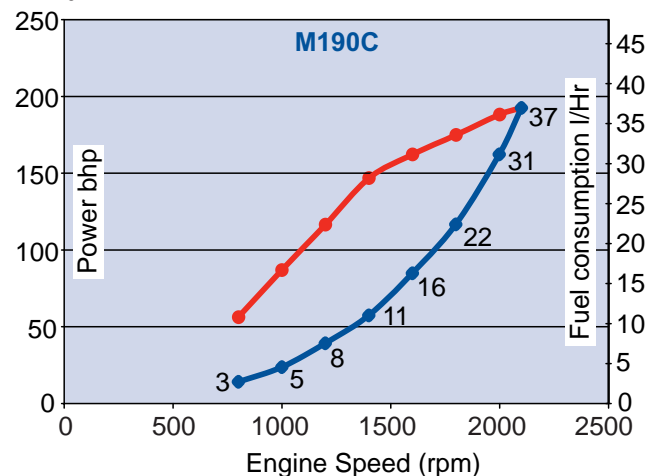
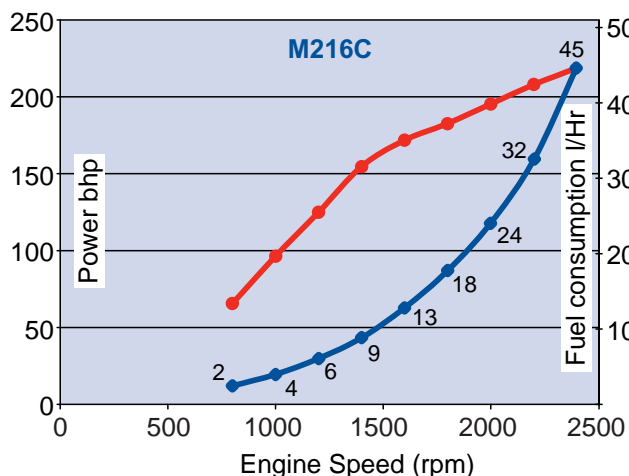
These engines utilise components of Caterpillar ACERT™ technology. This provides excellent fuel economy and low heat rejection.

Worldwide Power Solution

They have been designed to be worldwide fuel tolerant, including kerosene, jet aviation fuel and B20 biofuel (RME). Options are available to meet local market needs.

Model	Rating	Peak Torque (Nm)	Rating
M216C	216 hp (161 kW) @ 2400 rpm	779 @ 1400rpm	MD
M190C	190 hp (143 kW) @ 2100 rpm	779 @ 1400rpm	HD

Meets EPA Tier 2, IMO, RCD and CCNR stage 2.



Propeller law consumption (3 index).

Propellers should be matched to achieve maximum rated engine speed under fully laden boat conditions. Engine delivered from factory will be set to produce gross (flywheel) power output within manufacturing tolerances to ISO 8665: 2006 conditions.

Features:

- Common rail fuel system
- Electronic engine control
- Automatic cold start control
- Multi shot fuel injection
- Optimised combustion
- Gear driven auxiliary and jacket water pumps
- Integral oil cooler
- Heat exchanger & keel cooling
- Isolated timing case & sump
- High capacity heat exchanger with cupro-nickel charge cooler

Benefits:

- Excellent power to weight
- Ease of Installation
- Clean, quiet, smooth operation
- Excellent fuel economy
- Easy to maintain with 500hr Service interval
- Reliability
- Bio Diesel up to B20
- Approved for use with Military fuels

Standard Features

- 500 hour service interval
- CuNi sea water charge air cooler
- Common rail fuel system
- SAE3 backend
- Primary & secondary fuel filter, with integrated water in fuel alarm
- Watercooled exhaust manifold, with integral header tank
- Dry wrapped turbocharger
- Electronic governor
- Filtered crankcase breather
- Oil filter, high level dipstick, and twin oil fillers
- Shallow sump
- Integral oil cooler
- Gear driven self priming auxiliary water pump
- Gear driven centrifugal jacket water pump
- 90 Amp 12 Volt alternator
- 12 Volt starter motor
- J1939 fault diagnostics
- Insulated electrics
- US Coast Guard, MCA & RCD approved oil and fuel lines

Optional Equipment

- 24 Volt starting
- 55 & 100 Amp 24 Volt charging alternators
- 175 Amp 12 Volt charging alternator
- Analogue & digital marine displays
- Anti-vibration engine mounts
- Dry & wet exhaust elbows
- Heat exchanger & keel cooling
- Marine transmission adaption kits
- Factory installed marine transmission
- Gearbox oil cooler
- Conversion kit for control cables
- Power Take Off - crankshaft PTO extension shaft with pulley drives

General Data

Number of cylinders	Vertical in-line 6 cylinder
Bore and stroke	105 mm x 127 mm
Displacement	6.6 litres
Aspiration	Turbocharged aftercooling
Cycle	4 stroke
Combustion system	Direct injection
Compression ratio	16.2:1
Rotation	Anti-clockwise viewed on flywheel
Cooling system	Water
PTO	Refer to installation guide
Operational angle (max)	20° nose up. Heel 25° constant, 35° intermittent
Dimensions	*Length 1328 mm Width 805 mm Height 828 mm
Dry weight	698 kg
Wet weight	736 kg

Final weight and dimensions will depend on completed specification

Rating Definitions

Pleasure Duty

For vessels operating up to 30% load factor. This rating is intended for pleasure/non-revenue generating applications that operate less than 500 hours a year. Typical applications could include but are not limited to: High speed planning craft.

Light Duty

For vessels operating up to 50% load factor. This rating is intended for applications that operate less than 1500 hours a year in variable load applications where full power is limited to 2 hours out of every 12 hours of operation and reduced power must be at or below 200 rpm of the maximum rated rpm. Typical applications could include but are not limited to: planing / semi displacement craft such as customs and police launches, sport fish charter vessels, passenger carriers, survey craft and long distance cruisers etc.

Medium Duty

For vessels operating up to 60% load factor. This rating is intended for applications that operate less than 4000 hours a year. Typical applications could include but are not limited to: Semi-displacement / displacement craft such as customs and police launches, high speed commercial fishing, passenger carriers, survey craft, ferries and long distance cruisers etc.

Heavy Duty

For vessels operating up to 80% load factor. This rating is intended for applications that operate less than 4000 hours a year. Typical applications could include but are not limited to: semi-displacement / displacement craft such as customs and police launches, high speed commercial fishing, passenger carriers, survey craft and ferries etc.

For further details on definitions please contact your local Perkins distributor.



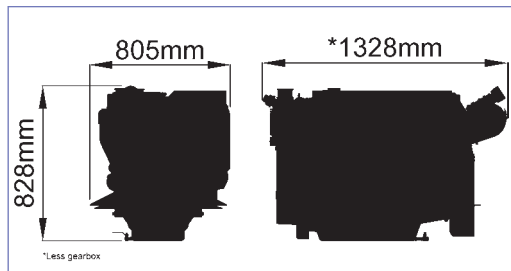
Wimborne Marine Power Centre

22 Cobham Road,
Ferndown Industrial Estate,
Wimborne,
Dorset, BH21 7PW,
England.

Tel: +44 (0)1202 893720, Fax: +44 (0)1202 851700

E-mail: Marine@Perkins.com

Web: www.Perkins.com/Marine



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