

B4.5L

MARINE PROPULSION AND AUXILIARY ENGINES

COMMERCIAL AND RECREATIONAL APPLICATIONS

GENERAL SPECIFICATIONS

| | |
|--------------------------|--------------------------------------|
| Configuration | In-line, 4-cylinder, 4-stroke diesel |
| Aspiration | Turbocharged / Aftercooled |
| Displacement | 4.5 L [272 in ³] |
| Bore & Stroke | 107 x 124 mm [4.21 x 4.88 in] |
| Fuel System | High Pressure Common Rail (HPCR) |

PRODUCT DIMENSIONS AND WEIGHT

| | | |
|------------------------|---------|----------------|
| Overall Length | mm (in) | 1112.1 (43.79) |
| Length of Block | mm (in) | 507.9 (20.00) |
| Overall Width | mm (in) | 861.8 (33.93) |
| Overall Height | mm (in) | 877 (34.53) |
| Weight | kg (lb) | 545 (1202) |

Dimensions can vary based on selected engine configurations.



POWER RATINGS

| Engine Model | Output Power | | Engine Speed RPM | Rating Definition | Fuel Consumption | | Emissions | | |
|---------------------------------------|--------------|-----|------------------|-------------------|---------------------------|--------------------|-----------|-----|----|
| | kW | BHP | | | Rated Speed L/hr (gal/hr) | ISO* L/hr (gal/hr) | IMO | EPA | EU |
| Main Propulsion (Commercial) | | | | | | | | | |
| B4.5-M | 112 | 150 | 2500 | Heavy Duty | 31.8 (8.4) | 21.3 (5.6) | — | 3 | 5 |
| B4.5-M | 172 | 230 | 2600 | Intermittent | 46.7 (12.3) | 32.0 (8.5) | 2 | 3 | — |
| B4.5-M | 186 | 250 | 2600 | Light Duty | TBD | TBD | 2 | 3 | — |
| Main Propulsion (Recreational) | | | | | | | | | |
| B4.5-M | 172 | 230 | 2600 | High Output | 46.7 (12.3) | 32.0 (8.5) | 2 | 3 | — |
| B4.5-M | 186 | 250 | 2600 | High Output | TBD | TBD | 2 | 3 | — |
| Main Auxiliary (Commercial) | | | | | | | | | |
| B4.5-DM | 91 | 122 | 1500 | Prime – 50 Hz | 24.6 (6.5) | 12.2 (3.2) | — | — | 5 |
| B4.5-DM | 112 | 150 | 1500 | Prime – 50 Hz | 29.9 (7.9) | 14.7 (3.9) | — | — | 5 |
| B4.5-DM | 76 | 102 | 1800 | Prime – 60 Hz | 21.9 (5.8) | 11.1 (2.9) | — | 3 | — |
| B4.5-DM | 91 | 122 | 1800 | Prime – 60 Hz | 26.9 (7.1) | 12.9 (3.4) | — | 3 | — |
| B4.5-DM | 112 | 150 | 1800 | Prime – 60 Hz | 29.9 (7.9) | 14.7 (3.9) | — | 3 | — |
| B4.5-DM | 129 | 173 | 1800 | Prime – 60 Hz | 33.7 (8.9) | 16.7 (4.4) | — | 3 | — |

*Average fuel consumption based on ISO 8178 E3 Standard Test Cycle (variable speed models) and ISO 8178 D2 Standard Cycle (fixed speed models).

FEATURES AND BENEFITS

Engine Design – The B4.5L is an in-line, 4-cylinder, 16-valve cylinder head, 4-stroke diesel engine, with a robust rebuildable engine block designed for continuous operation. Industry leading engine torque provides excellent vessel acceleration, control and maneuverability.

Fuel System – High Pressure Common Rail (HPCR) optimized for best-in-class fuel consumption lowering operating costs. Fuel Pump and Fuel Injectors are designed to operate with alternative fuels such as JP5, JP8 and biodiesel. Electric transfer fuel pump enabling a quick engine start. Includes primary and secondary filters with 10 and 5 microns respectively to provide better protection for the fuel pump and injectors.

Cooling System – Single loop with low temperature aftercooler intended for keel cooled (KC) or heat exchanger (HX). The simplicity of the cooling system eliminates the need for a more complex two-loop system, while meeting emissions requirements.

Exhaust System – Has a cast water cooled exhaust manifold for lower surface temperatures improving overall performance. The B4.5L is offered with either dry or wet exhaust elbows.

Air System – Includes commercial and recreational reusable and washable air cleaners providing overall cost savings.

Mounting System – Includes engine mounts and vibration isolators providing a quieter work environment.

Electrical System – Offered with 12V and 24V with simple electrical OEM interface connections integral with C Command Systems. A remote backup throttle option is also available for easier integration for vessels.

Electronics – ECM integrates start/stop controls, fuel tank level monitoring for easier integration with the vessel. Also features engine protection and de-rates for optimum safety.

Certifications – Complies with US EPA Tier 3 emissions regulations without use of aftertreatment. Designed to meet the International Association of Classification Societies (IACS), SOLAS and USCG requirements.

Consult your local Cummins professional for a complete listing of available class approvals.

OPTIONAL EQUIPMENT

- C Command Connect
- Front Power Take Off
- SAE A Pad Accessory drive
- Marine Gear Oil Cooler



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