

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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