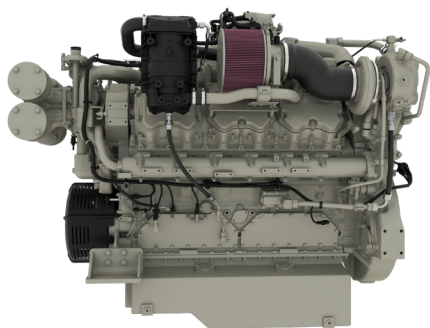




Cat® C32B

Marine Propulsion Engine

Government & Defense Applications

The Cat® C32B commercial propulsion engine sets a benchmark for naval and governmental vessels, delivering up to 20% more power with increased durability than previous C32 models. A redesigned core engine architecture raises power density to 1200 – 1700 bhp across A, B, and C ratings — without enlarging the engine footprint — while strengthened block, crankshaft, bearings, rods, and cylinder heads stand up to sustained high loads for extended overhaul intervals and greater uptime. Certified for IMO II, IMO III, and U.S. EPA Tier 4, the C32B pairs this performance with simplified emissions compliance: a new Airless SCR aftertreatment and switchable emissions configurations reduce system weight and failure points while enabling flexible operation across regulated waters. Backed by more than 115,000 operating hours in global marine service, it delivers mission-ready power fleets can depend on.

Features and Benefits:

ENGINE DESIGN

- Optimized engine design to enable increased power density
- Improved engine durability lowering total cost of ownership compared to previous models.
- Airless aftertreatment injection system
- Factory certified IMO II / IMO III / U.S. EPA Tier 4 systems
- IMO III system can be switched to IMO II mode in approved areas
- Updated engine electronic control module (ADEM VI)
- Updated aftercooler design for increased cooling
- Marine alarm and protection system available
- Marine Classification Society (MCS) certifications available

FAST LOAD RESPONSE FOR DYNAMIC MISSIONS

- Redesigned engine architecture delivers faster load response and acceleration under dynamic conditions, increasing power density and cylinder pressure without a larger footprint while providing 1200–1700 bhp across A, B, and C ratings and supporting repower commonality

DURABLE AND PROVEN PLATFORM

- Reinforced core components improve durability under sustained high loads, extending overhaul intervals and reducing maintenance. Proven with 115,000+ global marine operating hours, the platform is engineered to increase uptime and support predictable long-term lifecycle costs

FLEXIBLE, LIGHTWEIGHT EMISSIONS COMPLIANCE

- Certified for IMO II / IMO III / U.S. EPA Tier 4, enabling global operation. Airless SCR reduces system weight, maintenance, and failure points, while a wall-mounted dosing cabinet improves access and saves space. Switchable configurations enable flexibility across emission zones

Specifications

Configuration	V 12, 4 - Stroke Cycle Diesel
Emissions	IMO II, IMO II / III, U.S. EPA Tier 4
Rated Engine Speed	1600 – 2100 rpm
Displacement	32.1 L (1959 in ³)
Aspiration	Twin Turbocharged – Aftercooled
Governor	Electronic (ADEM VI)
Flywheel Housing	SAE No. 0

Bore × Stroke	145 mm × 162 mm / 5.7 in × 6.38 in
Refill Capacity Lube Oil System with Oil Filter Change	146 L (38.5 gal) – Deep Sump
Oil Change Interval	1000 hour A rating / 750 hour B rating
Rotation (From Flywheel End)	Counterclockwise
Cooling	Heat Exchanger or Keel Cooled



Ratings and Fuel Consumption

Commercial Propulsion Engines

Rating	mhp	bhp	bkW	rpm	U.S. g/h	g/bkW-h	IMO	U.S. EPA	EU	China
A	1217	1200	895	1600-1800	58	209.4	II / III	Tier 4	NC	NC
A	1319	1300	970	1800	63	208	II / III	Tier 4	NC	NC
B	1470	1450	1081	1800-2100	73	218.2	II / III	Tier 4	NC	NC

Rating Definition:

A Rating (Unrestricted Continuous)

Typical applications: For Vessels operating at rated load and rated speed up to 100% of the time without interruption or load cycling (80% to 100% load factor).

Typical operation ranges from 5000 to 8000 hours per year.

B Rating (Heavy Duty)

Typical applications: For vessels operating at rated load and rated speed up to 80% of the time with some load cycling (40% to 80% load factor).

Typical operation ranges from 3000 to 5000 hours per year.

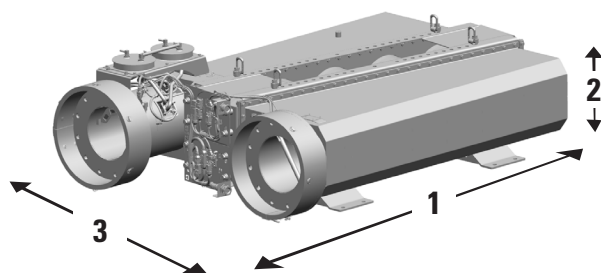
Clean Emissions Module (CEM)

The C32B engine requires Selective Catalyst Reduction (SCR) technology. The easy-to-install Cat® SCR System is an exhaust gas aftertreatment solution certified to U.S. EPA Tier 4/IMO III emission standards.

- Airless SCR technology
- IMO II / IMO III switchable calibrations available
- Maintains engine efficiency, durability and reliability
- Easy to install with minimum impact to vessel design
- Compact package from one single source
- Available for new builds and retrofits
- Wall mounted dosing cabinet design for easier service and installation
- For detailed dimensions and installation requirements, please refer to the latest revision of the application and installation (A&I) guide

Clean Emissions Module (CEM)

Available in U-flow configurations (shown) and Z-flow configurations.



Dosing Cabinet

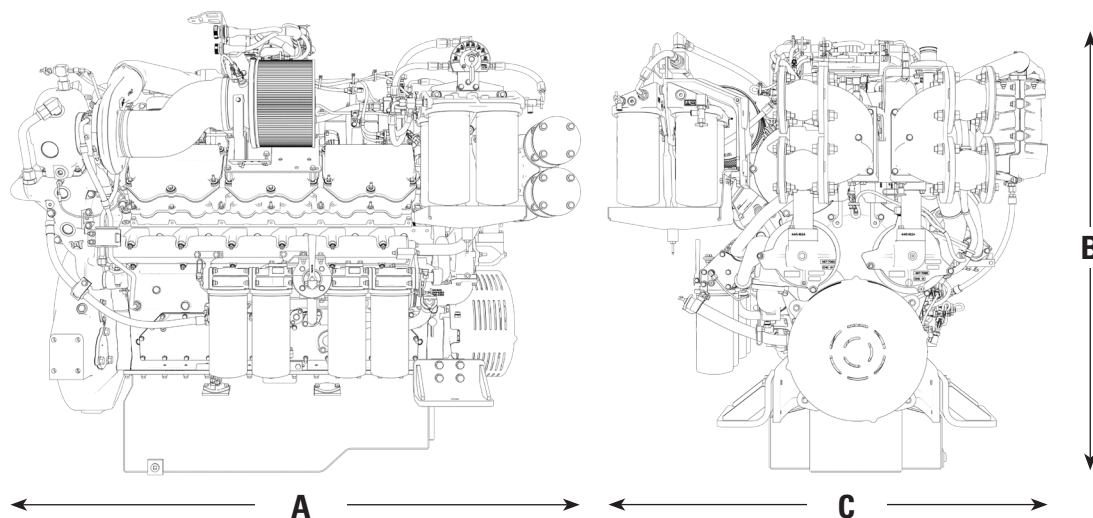


Model	Z-Flow		U-Flow		Dosing Cabinet	
1 Length	2508 mm	98.7 in	2336 mm	92 in	794 mm	31.3 in
2 Height	711 mm	28 in	711 mm	28 in	1453 mm	57.2 in
3 Width	1606 mm	63.2 in	1605 mm	63.2 in	344 mm	13.5 in
Weight	648 kg	1428.6 lb	647 kg	1426.4 lb	145 kg	319.7 lb

Cat® C32B Marine Propulsion Engine

Dimensions

All dimensions are approximate.



A Length	Maximum	2295 mm	90 in	C Width	Maximum	1550 mm	61 in
	Minimum	2131 mm	84 in		Minimum	1550 mm	61 in
B Height	Maximum	1760 mm	70 in	Dry Weight	Maximum	3650 kg	8050 lb
	Minimum	1760 mm	70 in		Minimum	3400 kg	7495 lb

Standard and Optional Equipment

Standard Equipment

- ADEM VI electronic control module
- Air cleaner/closed crankcase ventilation
- Gear-driven jacket water (JW) and sea water (SW) pump (if equipped)
- Water-cooled exhaust manifolds and turbochargers
- MEUI-C fuel system
- 1000-hour oil pan (deep sump with A-Rating)
- Right hand (RH) or left hand (LH) service side options
- Duplex fuel filtration

Optional Equipment

- 120 V or 240 V jacket water heater
- SAE A or B power take off (PTO) (RH rear)
- SAE A or B PTO (LH rear with Keel only)
- Front driven PTO
- 75 A, 105 A, or 175 A alternator
- Duplex lube oil
- Shallow sump oil pan
- Marine alarm and protection
- Safety of Life at Sea (SOLAS) shielding
- See marine price list for additional attachments

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

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