

C32

MARINE AUXILIARY / DIESEL ELECTRIC PROPULSION ENGINE

874 bkW (1172 bhp) @ 1500 rpm/50 Hz

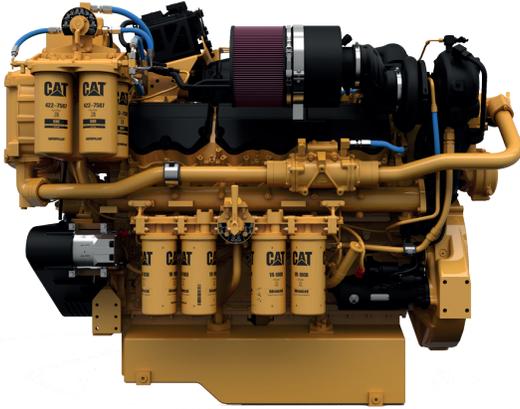


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ENGINE SPECIFICATIONS

Configurations

Vee 12, 4-stroke-cycle diesel

Emissions

IMO III emissions certified (SCR required)

Rated Engine Speed

1500 rpm

Bore x Stroke

145 mm x 162 mm / 5.71 in x 6.38 in

Displacement

32.1 Liter / 1959 cu in

Aspiration

Turbocharged-aftercooled aspiration

Governor

Electronic (A5 ECM)

Refill Capacity

Lube Oil System w/ oil filter change: 146 L (38.5 gal) - deep pan

Oil Change Interval

750 hrs - deep pan

Cooling

Heat exchanger or keel cooled

Flywheel Housing

SAE No. 0 with SAE No. 18 flywheel (136 teeth)

Rotation

Counterclockwise from flywheel end

FEATURES AND BENEFITS

- Utilizes SCR Technology to enable U.S. EPA Tier 4 Final emission regulations compliance while lowering operational costs
- Utilizes closed loop air assisted DEF dosing control strategy that delivers:
 - Highest efficiency mixing and control to lower operational costs
 - Extends emissions useful life
 - Ensures compliance
 - Flexible to urea quality
- Enhanced control of fuel injection optimized through crank timing and the A5 ECM technology
- Industry leading power reserve
- Wide range of available Marine Society certifications
- Industry-leading warranty coverage for factory packaged components
- Global dealer network for service in any location

STANDARD ENGINE EQUIPMENT

- Separate circuit aftercooled (SCAC)
- Heat exchanger or Keel Cooling
- Watercooled exhaust manifold and turbocharger
- Deep or shallow sump oil pan
- Right or left hand service sides
- Oil fill, simplex filter and dipstick
- Duplex fuel filters with hybrid fuel lines
- Shipped loose primary fuel filter with water separator
- Air cleaner
- Hard seawater lines – no flexible hoses
- Fuel transfer and priming pump
- Adjustable front support mounting system
- Customer wiring and service tool connector
- Flanges for cooling connections, ANSI or DIN
- 24V control system

OPTIONAL ATTACHMENTS

- Closed crankcase fumes disposal
- Starting motors – air, electric or redundant
- Charging alternator
- Duplex oil filters
- MECP I control panel
- MECP III B control panel with Cat® Alarm and Protection System
- Front drives including stub shaft and pump drive
- Rear SAE A or B pump drives
- Manual or electric fuel priming pump
- Water-in-fuel and exhaust temperature sensors
- Fuel cooler

RATING DEFINITION AND CONDITION - PRIME POWER

Typical applications: For vessels operating with generator sets that provide power to the propulsion systems. All ratings are Prime Ratings according to ISO 8528-1 for unlimited usage per year at a load factor of $\leq 70\%$. 10% overload capability is required for a maximum of 1 hour out of every 12 and a maximum of 25 hours total per year.

Ratings are based on SAE J3046 and J1349 standard conditions of 100 kPa (29.61 in Hg) and 25°C (77°F). These ratings also apply at ISO8665, ISO3046-1:2002E, DIN6271-3, and BS5514 standard conditions of 100 kPa (29.61 in Hg), 27°C (81°F), and 60% relative humidity.

Fuel rates are based on fuel oil of 35° API [16°C (60°F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29°C (85°F) and weighing 838.9 g/liter (7.001 lbs/U.S. gal.).

Marine Auxiliary Engines are mainly used as generator set engines; however, they can be used for electrically driven pumps, winches, conveyors, thrusters, when it is specified. Engines can be radiator cooled or heat exchanger/keel cooled.

BUILT FOR IT.™



TECHNICAL DATA

C32 Marine Auxiliary / DEP Engine

CONSTANT SPEED FUEL & DEF CONSUMPTION - 1500 RPM, 50 HZ

% Power	Brake Specific Fuel Consumption				DEF Consumption 32.5 % Concentration		DEF Consumption 40 % Concentration	
	bhp	lb/bhp-hr	bkW	g/bkW-hr	Gal/hr	Liters/hr	Gal/hr	Liters/hr
100	1172	0.326	874	198.2	3.8	14.3	2.8	10.8
90	1055	0.327	787	199.2	3.2	12.4	2.5	9.3
80	938	0.332	699	202.3	2.6	9.8	2.0	7.4
70	820	0.331	612	201.3	2.4	8.8	1.8	6.7
60	703	0.336	524	204.2	1.9	7.0	1.4	5.2
50	586	0.342	437	208.1	1.4	5.1	1.0	3.8
40	469	0.350	350	212.6	1.1	4.0	0.8	3.0
30	352	0.359	262	218.6	0.8	2.9	0.6	2.3

For Cat® dealers:
Please reference TMI
Web for most current
information.

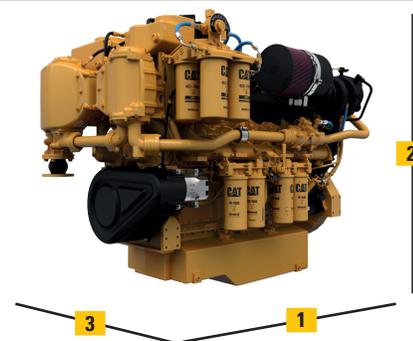
- ISO 3046/1 fluid consumption tolerance of -0/+5%
- Reference 32.5% DEF density of 1.0895 kg/L
- Reference 40% DEF density of 1.1120 kg/L

Consult your local Cat® dealer to create a customized engine
TCO (Total Cost of Ownership) analysis specific to your vessel.

DIMENSIONS & WEIGHT

	Length (1)	Height (2)	Width (3)	Engine dry weight
min.	83.9 in/2130 mm	59.3 in/1507 mm	57.1 in/1451 mm	6950 lb/3152 kg
max.	89.8 in/2280 mm	63.5 in/1613 mm	57.3 in/1455 mm	7160 lb/3248 kg

Note: Do not use these dimensions for installation design.
See general dimension drawings for detail.



CLEAN EMISSIONS MODULE (CEM)

Dimensions & Weight				
Model	Length (1)	Height (2)	Width (3)	Weight ¹
6 Brick Z-Flow	147.7 in/3751 mm	23.5 in/597 mm	43.5 in/1106 mm	1246 lb/565 kg
6 Brick U-Flow	85.0 in/2159 mm	23.5 in/597 mm	56.9 in/1445 mm	1235 lb/560 kg
Dosing Cabinet	37.4 in/949 mm	22.8 in/579 mm	18.8 in/477 mm	209 lb/95 kg

¹ Weight with catalysts installed

The C32 engine requires Selective Catalyst Reduction (SCR) technology.
The easy-to-install Cat® SCR System is an exhaust gas aftertreatment solution
compliant with IMO III emission standards.

- Proven technology to meet IMO III emission standards
- 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
- For detailed dimensions and installation requirements, please refer to latest revision of A&I guide LEBM0023.

Clean Emissions Module (CEM)

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



Dosing Cabinet



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LEHM0298-00

To find your nearest dealer, please visit: www.cat.com/marine

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