

# C32

## MARINE PROPULSION ENGINE

1081 bkW (1450 bhp) @ 2050 - 2150 rpm

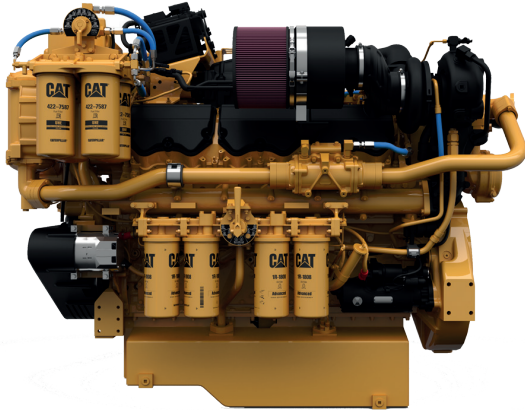


Image is for illustration purposes only and may not reflect actual product.

### ENGINE SPECIFICATIONS

#### Configurations

Vee 12, 4-stroke-cycle diesel

#### Emissions

U.S. EPA Tier 4 Final certified  
IMO III emissions certified  
(SCR required)

#### Rated Engine Speed

2050 - 2150 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

500 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

### C RATING (MAXIMUM CONTINUOUS) DEFINITION

Typical applications: For vessels operating at rated load and rated speed up to 50% of the time with cyclical load and speed (20% to 80% load factor). Typical operation ranges from 2000 to 4000 hours per year.

**BUILT FOR IT.™**



# TECHNICAL DATA

## C32 Marine Propulsion Engine

### PROP DEMAND FUEL & DEF CONSUMPTION (C RATING)

rpm	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
2150	1450	0.348	1081	211.5	3.6	13.6	2.7	10.3
2050	1257	0.342	937	207.7	3.2	12.5	2.5	9.4
1900	1000	0.334	746	203.1	2.8	10.6	2.1	7.9
1700	717	0.334	534	203.6	2.0	7.4	1.5	5.6
1400	400	0.345	298	210.4	1.3	4.9	1.0	3.7
1200	252	0.365	188	221.9	0.5	1.8	0.4	1.3
1000	146	0.372	109	225.7	0.0	0.0	0.0	0.0
800	75	0.405	56	245.3	0.0	0.0	0.0	0.0

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

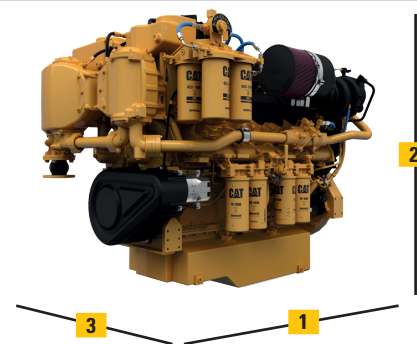
- ISO 3046/1 fluid consumption tolerance of -0/+5%
- Reference 32.5% DEF density of 1.0895 kg/L
- Reference 40% DEF density of 1.1120 kg/L

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 <sup>1</sup>
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

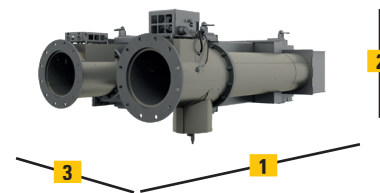
<sup>1</sup> Weight with catalysts installed

The C32 engine requires Selective Catalyst Reduction (SCR) technology.  
The easy-to-install Cat® SCR System is an exhaust gas aftertreatment solution  
compliant with U.S. EPA Tier 4 Final / IMO III emission standards.

- Proven technology to meet U.S. EPA Tier 4 Final / 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



CAT, CATERPILLAR, their respective logos, "Caterpillar Yellow" and the "Power Edge" trade dress,  
as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without  
permission. U.S. Sourced

LEHM0286-01

To find your nearest dealer, please visit: [www.cat.com/marine](http://www.cat.com/marine)

©2018 Caterpillar  
All rights reserved.

Materials and specifications are subject to change without notice.  
The International System of Units (SI) is used in this publication.