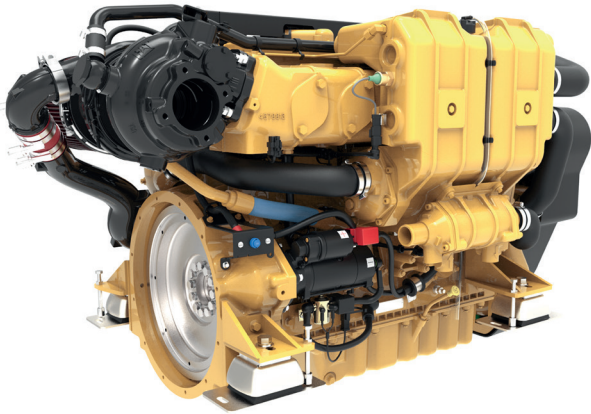


# C7.1

## MARINE PROPULSION ENGINE (U.S. EPA Tier 3 / IMO II)

261 bkW (350 bhp) @ 2500 rpm



C7.1 Marine Propulsion Engine (Commercial)  
U.S. EPA Tier 3 / IMO II

Image may not reflect actual product.

### ENGINE SPECIFICATIONS

#### Configuration

In-line 6, 4-stroke-cycle diesel

#### Emissions

U.S. EPA Tier 3 / IMO II  
emissions certified (commercial),  
RCD 2016 compliant

#### Rated Engine Speed

2500 rpm

#### Bore x Stroke

105 mm x 135 mm / 4.13 in x 5.31 in

#### Displacement

7.01 Liter  
428 cu in

#### Aspiration

Turbocharged-aftercooled  
aspiration

#### Governor

Electronic (A5E2 V2 ECM)

#### Refill Capacity

Lube Oil System w/Oil filter change:  
20 L (5.3 gal)

#### Oil Change Interval

500 hrs

#### Cooling

Heat exchanger or keel cooled

#### Flywheel Housing

SAE No. 03 with SAE  
11.5 in flywheel

#### Rotation

Counterclockwise from flywheel end

### FEATURES AND BENEFITS

- Superior response time and acceleration
- Common rail fuel system enables optimum combustion and low emissions
- Reduced combustion noise through advanced electronic control
- No visible smoke
- 12V or 24V electrical system
- Compatible with Cat® displays and electronics
- Closed crankcase ventilation system improves engine room cleanliness
- Gear driven jacket water pump and sea water pump for superior reliability
- Maintenance free valve train with hydraulic valve lash adjusters
- Self priming fuel system ensures a smooth start every time

### STANDARD ENGINE EQUIPMENT

- Watercooled turbocharger and exhaust manifold
- Common rail fuel system
- Corrosion resistant sea water aftercooler
- Closed crankcase ventilation system
- Starter motors – 12V or 24V
- Fuel cooler
- Integral engine oil cooler
- Vibration damper and guard
- Electric fuel priming pump
- Self-tensioning multi-vee belt drive
- Gear driven jacket water pump
- Front and rear engine mounting brackets

### OPTIONAL ATTACHMENTS

- Marine Classification Society (MCS) Approval  
ABS, BV, CCS, CRS, \*DNV-GL, IRS, LR, ClassNK, PRS, RINA  
(\*DNV-GL approval available for keel cooled engines only)
- SOLAS double wall high pressure fuel lines kit
- Engine mounted bilge pumps and auxiliary water pumps with  
electromagnetic clutch
- Engine mounted secondary alternator – 24V 55 amp or 12V 100 amp
- Analogue gauge displays
- Transmission gear oil cooler (engine mounted)
- Additional engine and transmission sensor packages for on or off vessel  
monitoring
- Glow plugs
- Jacket water heater
- Various 5" and 6" water cooled exhaust elbow configurations
- Cabin heater (calorifier) connections
- Right-hand and high level oil dipsticks
- Mechanical throttle converter for repower

### 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.

# TECHNICAL DATA

## C7.1 Marine Propulsion Engine (U.S. EPA Tier 3 / IMO II)

### PROP DEMAND FUEL CONSUMPTION

Brake Specific Fuel Consumption 261 bkW (350 bhp) @ 2500 rpm				
rpm	bkW	L/hr	bhp	Gal/hr
2500	261	69.2	350	18.3
2400	231	60.9	310	16.1
2200	178	46.8	239	12.4
2000	134	36.5	179	9.6
1800	97.5	26.6	131	7
1600	68.5	19	91.9	5
1400	45.9	12.5	61.5	3.3
1200	28.9	8	38.8	2.1
1000	16.7	5	22.4	1.3
800	8.6	3	11.5	0.8
600	3.6	1.7	4.8	0.4

- ISO 3046/1 fluid consumption tolerance of -0/+5%

Note:

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

Dealers (only): Please reference TMI Web for most current information.

### DIMENSIONS & WEIGHT

	Length (1)	Height (2)	Width (3)	Engine dry weight
min.	1095 mm/43.1 in <sup>1</sup>	891 mm/35.1 in	798 mm/31.4 in <sup>2</sup>	730 kg/1609 lb <sup>3</sup>
max.			850 mm/33.5 in <sup>3</sup>	760 kg/1676 lb <sup>2</sup>

Note:

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

<sup>1</sup> From rear face of flywheel housing to front of engine

<sup>2</sup> Heat Exchanger

<sup>3</sup> Keel Cooled

