# **C32**

# **MARINE PROPULSION ENGINE (IMO II)**

970 bkW (1300 bhp) @ 1800 rpm



C32 Marine Propulsion Engine IMO II

# **ENGINE SPECIFICATIONS**

## Configuration

Vee 12, 4-stroke-cycle diesel

#### **Emissions**

IM0 II

emissions certified

# **Rated Engine Speed**

1800 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 (A4 ECM)

# **Refill Capacity**

Lube Oil System w/Oil filter change: 146 L (38.5 gal)

# **Oil Change Interval**

500 hrs

#### 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**

- Separate-circuit aftercooling no sea water in aftercooler
- Reliable electronic controlled unit injector fuel system
- Enhanced control of fuel injection optimized through crank timing and the A4 ECM technology
- Advanced combustion technology to optimize fuel consumption and meet emissions without aftertreatment
- 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

# OPTIONAL ATTACHMENTS Starting maters air electric

- Starting motors air, electric or dual
- Charging alternator
- Duplex oil filters
- MECP I control panel
- MECP II or MECP III control panel with Cat® Alarm and Protection System
- Front drives including stub shaft and pump drive
- Rear SAE A or B pump drives
- Closed crankcase fumes disposal
- Primary fuel filter with water separator, fuel cooler

# 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
- 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

# **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**

# **C32 Marine Propulsion Engine (IMO II)**

# PROP DEMAND FUEL CONSUMPTION

	Brake Specific Fuel Consumption				
rpm	bhp	lb/bhp-hr	bkW	g/bkW-hr	
1800	1300	0.330	970	200.6	
1600	913	0.345	681	209.5	
1400	612	0.343	456	208.8	
1200	385	0.341	287	207.6	
1000	223	0.348	166	212.7	
<b>800</b> 114 0.368 85 223.4					
ISO 3046/1 fluid consumption tolerance of -0/+5%					

#### Note:

Please reference TMI Web for most current information (Cat dealers only) 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
Matai				

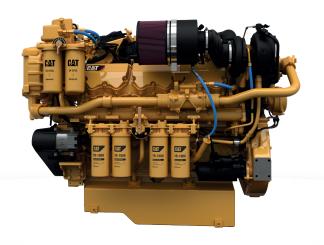
Note:

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



# **MARINE PROPULSION ENGINE (IMO II)**

492 bkW (660 bhp) @ 1800 rpm / 559 bkW (750 bhp) @ 1800 rpm / 634 bkW (850 bhp) @ 1800 rpm / 746 bkW (1000 bhp) @ 1800 rpm



C32 Marine Propulsion Engine IM0 II

# **ENGINE SPECIFICATIONS**

## Configuration

Vee 12, 4-stroke-cycle diesel

#### **Emissions**

IM0 II

emissions certified

# **Rated Engine Speed**

1600 - 1800 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 (A4 ECM)

## **Refill Capacity**

Lube Oil System w/Oil filter change: 146 L (38.5 gal)

# **Oil Change Interval**

1000 hrs

#### 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**

- Separate-circuit aftercooling no sea water in aftercooler
- Reliable electronic controlled unit injector fuel system
- Enhanced control of fuel injection optimized through crank timing and the A4 ECM technology
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- Industry leading power reserve
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# **OPTIONAL ATTACHMENTS**

- Starting motors air, electric or dual
- Charging alternator
- Duplex oil filters
- MECP I control panel
- MECP II or MECP III control panel with Cat® Alarm and Protection System
- Front drives including stub shaft and pump drive
- Rear SAE A or B pump drives
- Closed crankcase fumes disposal
- Primary fuel filter with water separator, fuel cooler

# 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
- 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

# A RATING (UNRESTRICTED CONTINUOUS) DEFINITION

Typical applications: For vessels operating at rated load and rated speed up to 100% of the time without interruption or cyclical load (80% to 100% load factor). Typical operation ranges from 5000 to 8000 hours per year



# **TECHNICAL DATA**

# **C32 Marine Propulsion Engine (IMO II)**

#### PROP DEMAND FUEL CONSUMPTION

	Brake Specific Fuel Consumption				
rpm	bhp	lb/bhp-hr	bkW	g/bkW-hr	
1800	660	0.336	492	204.4	
1600	463	0.343	346	207.6	
1400	310	0.348	231	212.0	
<b>1200</b> 195 0.366 146 222.1					
<b>1000</b> 113 0.371 84 226.2					
800	58	0.415	43	249.5	
ISO 3046/1 fluid consumption tolerance of -0/+5%					

	Brake Specific Fuel Consumption				
rpm	bhp	lb/bhp-hr	bkW	g/bkW-hr	
1800	850	0.331	634	201.5	
1600	597	0.341	445	206.9	
1400	400	0.343	298	209.0	
1200	252	0.354	188	216.2	
<b>1000</b> 146 0.372 109 226.5					
800	75	0.405	56	245.3	
• ISO 3046/1 fluid consumption tolerance of -0/+5%					

	Brake Specific Fuel Consumption				
rpm	bhp	lb/bhp-hr	bkW	g/bkW-hr	
1800	1000	0.342	746	208.1	
1600	703	0.364	524	221.2	
1400	471	0.338	351	206.1	
<b>1200</b> 296 0.357 221 217.4					
1000	172	0.361	128	219.3	
ISO 3046/1 fluid consumption tolerance of -0/+5%					

	Brake Specific Fuel Consumption				
rpm	bhp	lb/bhp-hr	bkW	g/bkW-hr	
1800	750	0.332	559	201.8	
1600	526	0.340	393	205.8	
1400	353	0.341	263	207.5	
1200	222	0.353	166	214.2	
<b>1000</b> 129 0.367 96 224.0					
800	66	0.397	49	241.4	
<ul> <li>ISO 3046/1 fluid consumption tolerance of -0/+5%</li> </ul>					

	Brake Specific Fuel Consumption			
rpm	bhp	lb/bhp-hr	bkW	g/bkW-hr
1800	1000	0.330	746	201.0
1600	703	0.335	524	203.9
1400	471	0.343	351	208.9
1200	296	0.343	221	208.5
1000	172	0.347	128	211.5
800	88	0.368	66	222.4
ISO 3046/1 fluid consumption tolerance of -0/+5%				

Note

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Consult your local Cat dealer to create a customized engine TCO (Total Cost of Ownership)
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# **DIMENSIONS & WEIGHT**

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Note:

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