



## C18 ACERT™ MARINE PROPULSION

486 mhp (479  
bhp) 357 bkW

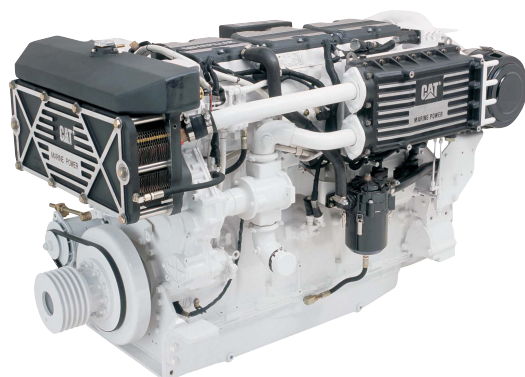


Image shown may not reflect  
actual Engine

### SPECIFICATIONS

#### I-6, 4-Stroke-Cycle-Diesel

Emissions.....	IMO/EPA Tier 2
Displacement.....	18.1 L (1106 cu in)
Rated Engine Speed.....	1800
Bore.....	145.0 mm (5.7 in)
Stroke.....	183.0 mm (7.2 in)
Aspiration.....	TA, TTA
Governor.....	Electronic
Cooling System.....	Heat Exchanger or Keel Cooled
Weight, Net Dry (approx.).....	1,091 kg (2,405 lb)
Refill Capacity	
Cooling System.....	45.8 L (12.1 Gal)
Lube Oil System.....	64 L (16.9 Gal)
Oil Change Interval.....	500 hrs
Caterpillar Diesel Engine Oil 10W30 or 15W40	
Rotation (from flywheel end).....	Counterclockwise
Flywheel and Flywheel Housing....	SAE No. 1 or SAE No. 0
Flywheel Teeth	
SAE No. 1.....	113
SAE No. 0.....	136
Maximum Exhaust Backpressure...	6.7 kPa (26.9 in. water)

### STANDARD ENGINE EQUIPMENT

#### Air Inlet System

Corrosion-resistant sea water aftercooled, air cleaner/fumes disposal (closed system), jacket water cooled turbocharger, turbocharger inlet OD straight connection

Corrosion-resistant sea water aftercooler, air cleaner/fumes disposal (closed system with service indicator), turbocharger air cleaner/fumes disposal (closed system)

#### Control System

Electronic governing (A4), programmable low idle, electronic diagnostics and fault logging, fuel/air ratio control, electronic throttle position sensor

#### Cooling System

Thermostat and housing, block heater (1500W, 120V AC current), gear-driven jacket water pump, self priming, gear-driven sea water pump with bronze impeller, titanium plate type heat exchanger

#### Exhaust System

Watercooled exhaust manifold and turbocharger, round flanged outlet

#### Fuel System

Fuel priming pump, fuel transfer pump, fuel filter - RH or LH service, flexible fuel lines

#### Instrumentation

Electronic service meter, instrument panel (24V), start/stop switch, emergency stop button, maintenance due light, diagnostic light, warning light, maintenance clear switch, start motor magnetic switch, 15 and 3A breakers

#### Lube System

Crankcase breather; oil cooler; spin-on oil filter, RH service on port, LH service on starboard; center sump deep oil pan; oil filler; dipstick, RH service on port, LH service on starboard; gear-driven oil pump

#### Mounting System

Front support - adjustable

#### Power Takeoffs

Hydraulic pump drive, SAE A, 11 tooth spline, 46 ft-lb max torque, counterclockwise as viewed from front of the engine looking into the drive and turns 1.41 x engine speed, 292 mm crankshaft pulley, 15.88 mm width

#### General

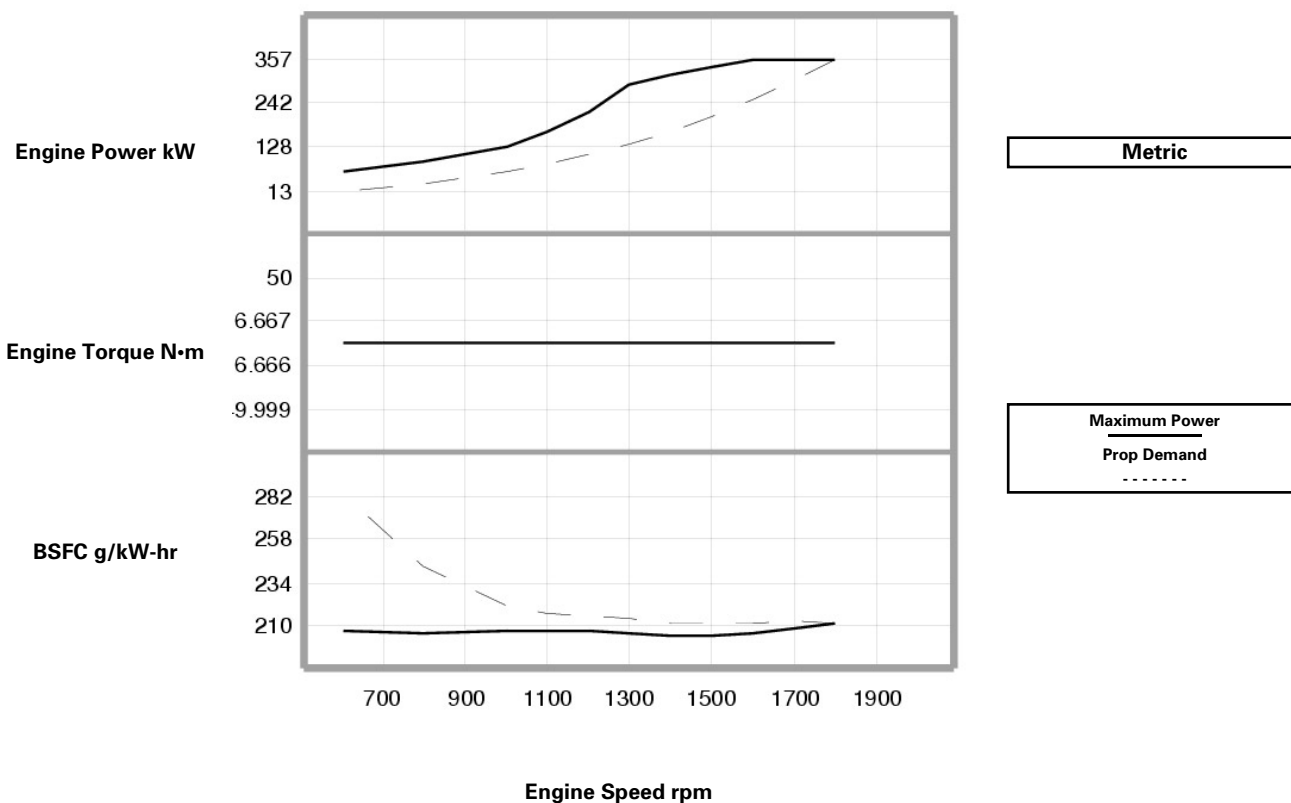
Vibration damper; lifting eyes, RH or LH service options; literature; variable engine wiring; upper rear-facing customer wiring connector and service tool connections

#### ISO Certification

Factory-designed systems built at Caterpillar  
ISO 9001:2000 certified facilities

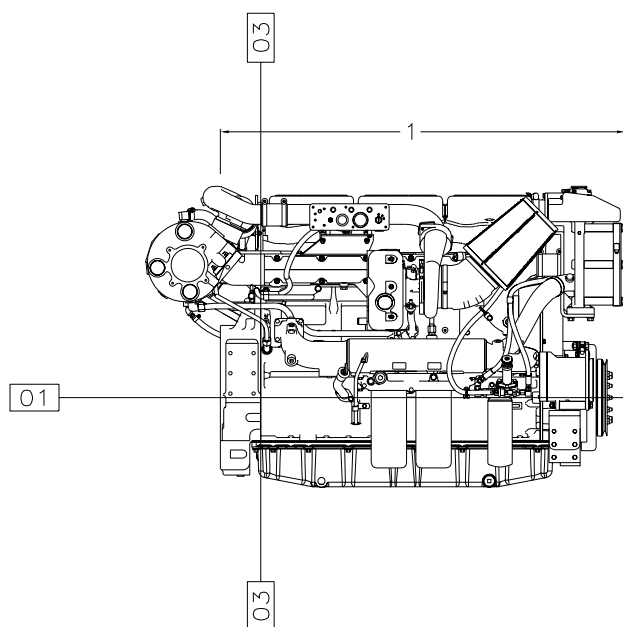
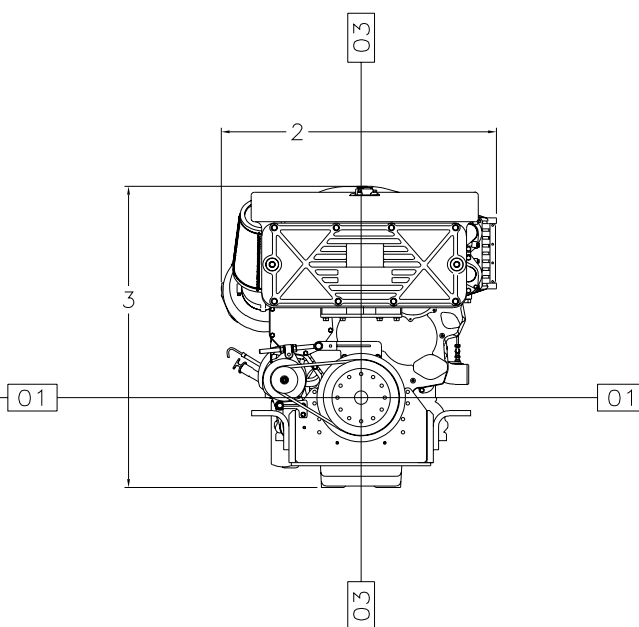
## PERFORMANCE CURVES

### A-RATING - DM9569-00



Maximum Power Data					Prop Demand Data				
Engine Speed rpm	Engine Power kW	Engine Torque N·m	BSFC g/kW-hr	Fuel Rate L/hr	Engine Speed rpm	Engine Power kW	Engine Torque N·m	BSFC g/kW-hr	Fuel Rate L/hr
1800	357	1894	211.3	89.9	1800	357	1894	211.3	89.9
1700	357	2006	207.4	88.3	1700	300.7	1689	212.2	76.1
1600	357	2131	205.4	87.4	1600	250.7	1496	211.3	63.2
1500	337	2145	204.4	82.1	1500	206.6	1315	210.3	51.8
1400	316	2155	204.5	77.0	1400	168	1146	211	42.2
1300	290	2130	205.5	71.0	1300	134.5	988	213.2	34.2
1200	216	1717	206.5	53.1	1200	105.8	842	214.7	27.1
1100	169	1464	206.5	41.5	1100	81.5	707	215.8	21.0
1000	127	1210	206.1	31.1	1000	61.2	585	219.8	16.0
800	89	1057	205.7	21.7	800	31.3	374	242.9	9.1
600	60	957	206.4	14.8	600	13.2	210	282.4	4.5

NOTE: Prop demand data is a cubic prop demand curve with 3.0 exponent for displacement hulls only.

**DIMENSIONS****Right Side****Front**

Engine Dimensions		
(1) Length to Flywheel Housing	1599.0 mm	62.95 in
(2) Width	1090.2 mm	42.92 in
(3) Height	1248.0 mm	49.13 in
Weight, Net Dry (approx)	1091 kg	2,405 lb

Note: Do not use for installation design. See general dimension drawings for detail (Drawing # 3264303 ).



## RATING DEFINITIONS AND CONDITIONS

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### A Rating (Unrestricted Continuous) -

% Load Factor: 80 to 100  
 % Time at Rated RPM: up to 80  
 Typical Time at Full Load: No Limit  
 Typical Hour/Year: 5000 to 8000  
 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 applications could include but are not limited to vessels such as freighters, tugboats, bottom drag trawlers, or deep river tugboats. Typical operation ranges from 5000 to 8000 hours per year.

### Power

at declared engine speed is in accordance with ISO3046-1:2002E. Caterpillar maintains ISO9001:1994/QS-9000 approved engine test facilities to assure calibration of test equipment. Electronically controlled engines are set at the factory at the advertised power corrected to standard ambient conditions. The published fuel consumption rates are in accordance with ISO3046-1.

### 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/L (7.001 lb/U.S. gal). Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for additional information.

Performance data is calculated in accordance with tolerances and conditions stated in this specification sheet and is only intended for purposes of comparison with other manufacturer's engines. Actual engine performance may vary according to the particular application of the engine and operating conditions beyond Caterpillar's control.

Power produced at the flywheel will be within standard tolerances up to 49° C (120° F) combustion air temperature measured at the air cleaner inlet, and fuel temperature up to 52° C (125°F) measured at the fuel filter base. Power rated in accordance with NMMA procedure as crankshaft power. Reduce crankshaft power by 3% for propeller shaft power.

Performance No.: DM9569-00

Feature Code: C18MD37

U.S. Sourced

16303038

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