CATERPILLAR®

C12
MARINE PROPULSION

345 mhp
(340 bhp)
254 bkW

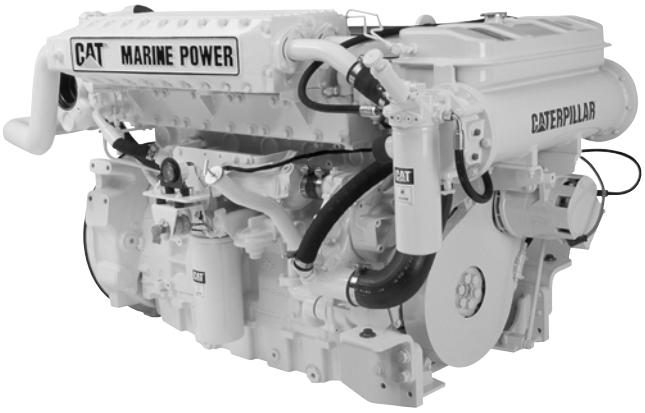


Image is a representation only, and may not show optional attachments.

SPECIFICATIONS

I-6, 4-Stroke-Cycle-Diesel

Emissions	EPA Tier II and IMO Compliant
Displacement	12 L (732 cu. in.)
Rated Engine Speed	1800
Bore	130.0 mm (5.1 in.)
Stroke	150.0 mm (5.9 in.)
Aspiration	Turbocharged-Aftercooled
Governor	Electronic
Cooling System	Heat Exchanger
Weight, Net Dry (approx)	1,174 kg (2,588 lb)
Refill Capacity	
Cooling System	45 L (12.0 U.S. gal)
Lube Oil System	28 L (7.5 U.S. gal)
Oil Change Interval	250 hrs
Caterpillar Diesel Engine Oil 10W30 or 15W40	
Center Sump Oil Pan	
Rotation (from flywheel end)	Counterclockwise
Flywheel and Flywheel Housing	SAE No. 1
Flywheel Teeth	113

STANDARD ENGINE EQUIPMENT

Air Inlet System
Corrosion resistant sea water aftercooler, air cleaner/fumes disposal system (closed)

Cooling System
Self-priming gear-driven sea water pump with rubber impeller, gear-driven jacket water pump, integral heat exchanger/expansion tank with removable tube bundle and replaceable copper-nickel tubes, thermostat and housing

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
Electric service meter

Lube System
Crankcase breather, engine oil cooler; oil filter — RH or LH service, oil level gauge — RH or LH service, oil filler, center sump oil pan, gear driven oil pump

Mounting System
Front support

Power Takeoffs
11 tooth spline SAE A hydraulic pump drive, single groove crankshaft pulley

Protection System
12 or 24 volt electronic shutdown (energized-to-run)

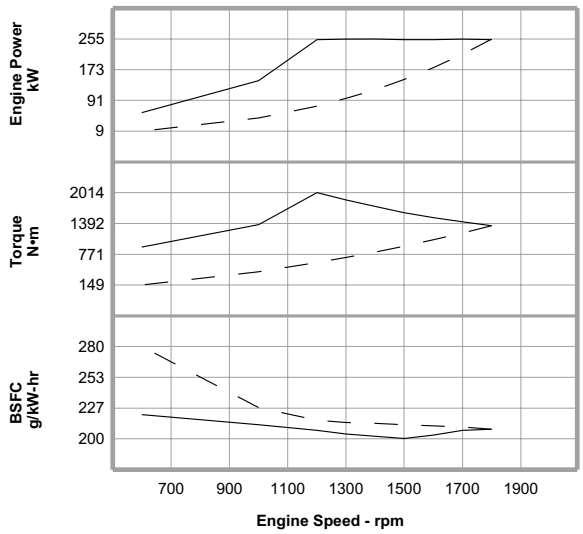
General
Vibration damper and guard, Caterpillar yellow paint, lifting eyes, variable engine wiring, customer wiring connector and service tool connector

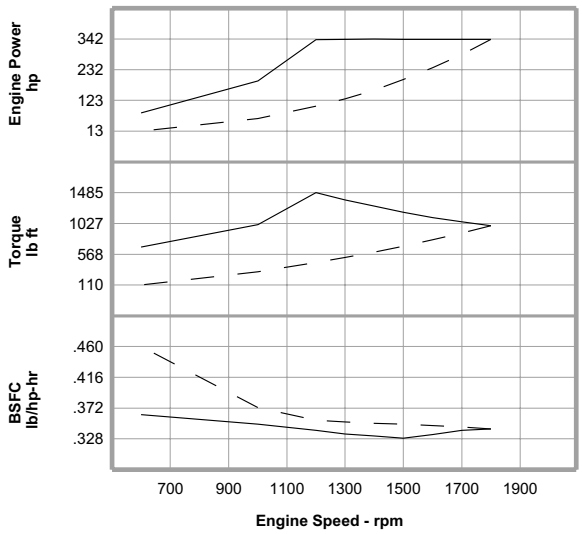
CATERPILLAR FACILITIES ISO 9001 CERTIFIED

MARINE ENGINE PERFORMANCE

C12 DITA
254 kW (340 hp) @ 1800 rpm
A Rating (Unrestricted Continuous) — DM7527-00

EPA Tier II and IMO Compliant





Metric | Maximum Power — | Prop Demand — — | **254 kW**

English | Maximum Power — | Prop Demand — — | **340 hp**

Performance Data

	Engine Speed rpm	Engine Power kW	Engine Torque N•m	BSFC g/kW-hr	Fuel Rate L/hr
Maximum Power Data	1800	253	1345	208.0	62.9
	1700	254	1424	207.0	62.5
	1600	253	1511	203.0	61.4
	1500	253	1613	200.0	60.4
	1400	255	1738	202.0	61.2
	1300	254	1865	204.0	61.8
	1200	253	2014	207.0	62.5
	1000	144	1370	212.0	36.2
	600	58	915	221.0	15.1
Prop Demand Data	1800	254	1345	208.0	62.9
	1700	214	1200	210.0	53.5
	1600	178	1063	211.0	44.9
	1500	147	934	212.0	37.1
	1400	119	814	213.0	30.3
	1300	96	702	214.0	24.4
	1200	75	598	216.0	19.4
	1000	44	415	227.0	11.8
	600	9	149	280.0	3.1

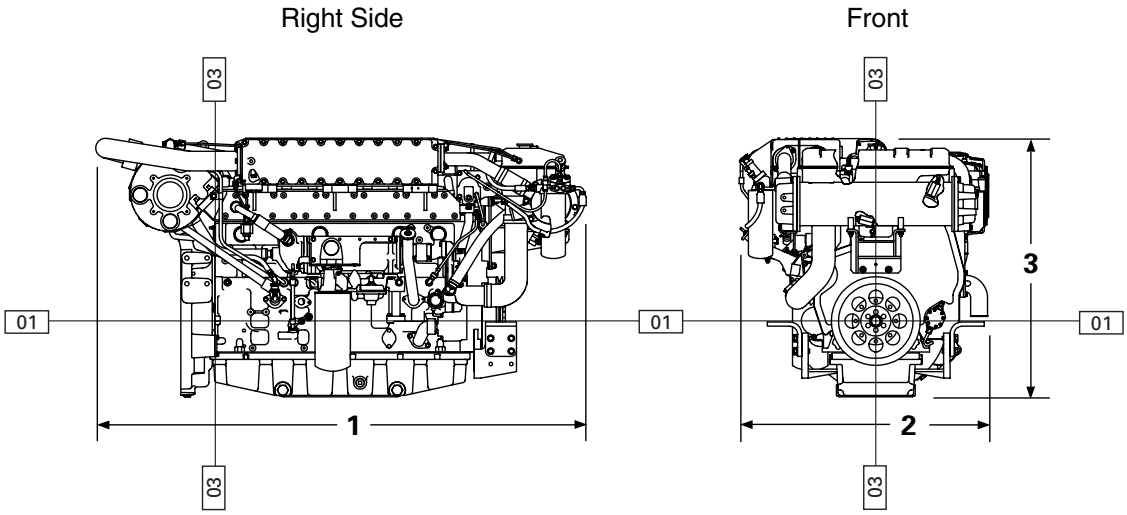
Cubic prop demand curve with 3.0 exponent for displacement hulls only.

Performance Data

	Engine Speed rpm	Engine Power hp	Engine Torque lb ft	BSFC lb/hp-hr	Fuel Rate gph
Maximum Power Data	1800	340	992	.342	16.6
	1700	340	1050	.340	16.5
	1600	340	1114	.334	16.2
	1500	340	1190	.329	16.0
	1400	342	1282	.332	16.2
	1300	340	1375	.335	16.3
	1200	339	1485	.340	16.5
	1000	192	1010	.349	9.6
	600	77	675	.363	4.0
Prop Demand Data	1800	340	992	.342	16.6
	1700	286	885	.345	14.1
	1600	239	784	.347	11.9
	1500	197	689	.349	9.8
	1400	160	600	.350	8.0
	1300	128	518	.352	6.4
	1200	101	441	.355	5.1
	1000	58	306	.373	3.1
	600	13	110	.460	0.8

Power produced at the flywheel will be within standard tolerances up to 50°C (122°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.

DIMENSIONS



Engine Dimensions		
(1) Length to Flywheel Housing	1573.9 mm	61.96 in
(2) Width	968.6 mm	38.13 in
(3) Height	1004.5 mm	39.55 in
Weight, Net Dry (approx)	1174 kg	2,588 lb

Note: Do not use for installation design. See general dimension drawing for detail (Drawing # 2169705).

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RATING DEFINITIONS AND CONDITIONS

A Rating (Unrestricted Continuous)

% Load Factor: 80 to 100

% Time at Rated RPM: up to 100

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 accurate 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 ISO3046-1:2002E.

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 manufacturers' 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 50°C (122°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.

TMI Reference No.: DM7527-00
U.S. Sourced
LEHM3409-00 (11-03)