

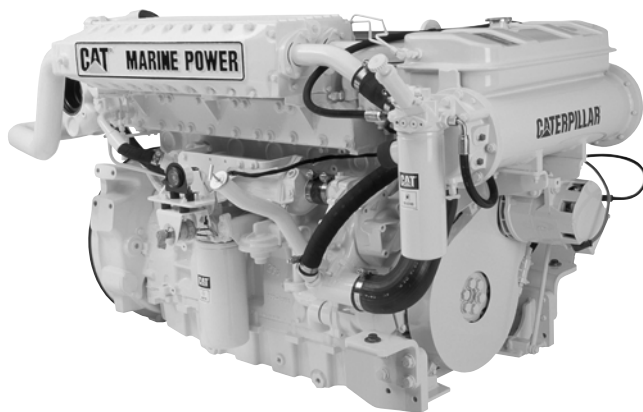


Image is a representation only, and may not show optional attachments.

SPECIFICATIONS

I-6, 4-Stroke-Cycle-Diesel

Emissions	 EPA Tier II and IMO Compliant
Displacement	 12 L (732 cu. in.)
Rated Engine Speed	 2100
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



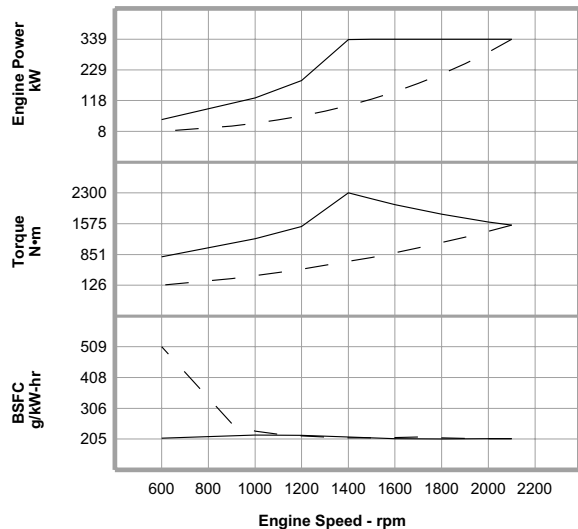
MARINE ENGINE PERFORMANCE

C12 DITA

339 kW (454 hp) @ 2100 rpm

C Rating (Maximum Continuous) — DM7529-00

EPA Tier II and IMO Compliant



Metric

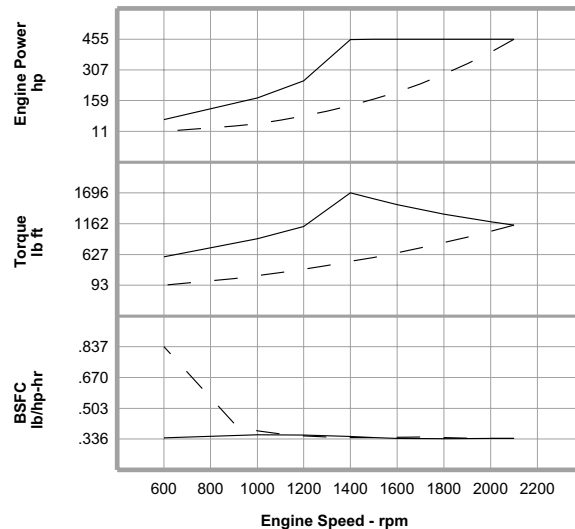
Maximum Power
Prop Demand

339 kW

Performance Data

	Engine Speed rpm	Engine Power kW	Engine Torque N·m	BSFC g/kW-hr	Fuel Rate L/hr
Maximum Power Data	2100	339	1539	206.0	83.1
	2000	338	1616	206.0	82.9
	1800	339	1799	205.0	82.9
	1600	339	2022	206.0	83.3
	1500	339	2158	209.0	84.3
	1400	337	2300	212.0	85.1
	1200	190	1510	217.0	49.1
	1000	128	1225	218.0	33.3
	600	50	800	208.0	12.5
Prop Demand Data	2100	339	1539	206.0	83.1
	2000	292	1396	206.0	71.7
	1900	251	1260	207.0	61.9
	1800	213	1131	209.0	53.1
	1700	180	1009	211.0	45.1
	1500	123	785	209.0	30.8
	1400	100	684	209.0	25.0
	1200	63	503	215.0	16.2
	1100	49	422	221.0	12.8
	900	27	283	256.0	8.1
	600	8	126	509.0	4.8

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



English

Maximum Power
Prop Demand

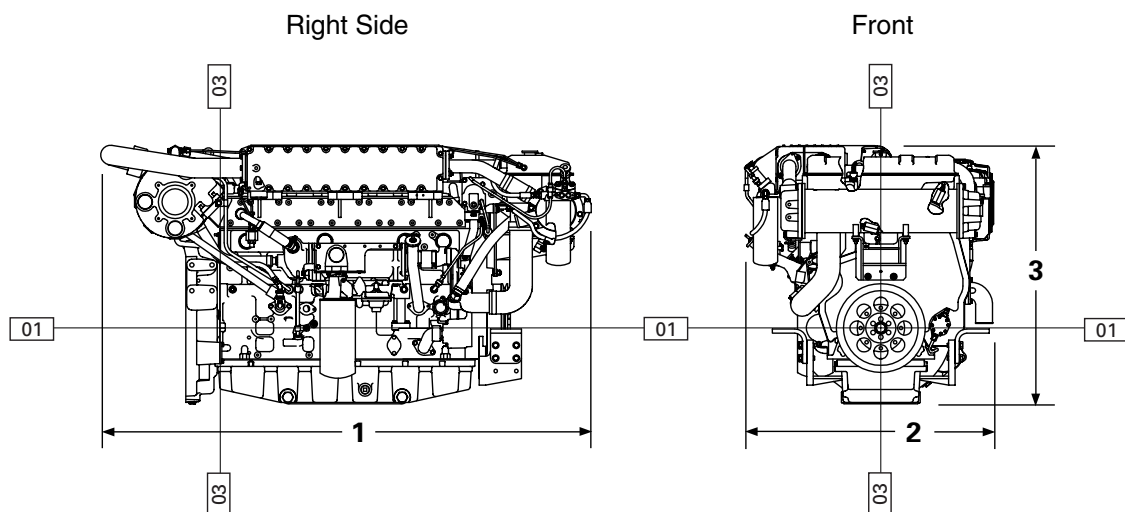
454 hp

Performance Data

	Engine Speed rpm	Engine Power hp	Engine Torque lb ft	BSFC lb/hp-hr	Fuel Rate gph
Maximum Power Data	2100	454	1135	.339	22.0
	2000	454	1192	.339	21.9
	1800	455	1327	.337	21.9
	1600	454	1491	.339	22.0
	1500	455	1592	.344	22.3
	1400	452	1696	.349	22.5
	1200	254	1114	.357	13.0
	1000	172	903	.358	8.8
	600	67	590	.342	3.3
Prop Demand Data	2100	454	1135	.339	22.0
	2000	392	1030	.339	18.9
	1900	336	929	.340	16.4
	1800	286	834	.344	14.0
	1700	241	744	.347	11.9
	1500	165	579	.344	8.1
	1400	135	504	.344	6.6
	1200	85	371	.353	4.3
	1100	65	311	.363	3.4
	900	36	209	.421	2.1
	600	11	93	.837	1.3

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).

RATING DEFINITIONS AND CONDITIONS

C Rating (Maximum Continuous)

% Load Factor: 20 to 80

% Time at Rated RPM: up to 50

Typical Hour/Year: 2000 to 4000

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 applications could include but are not limited to vessels such as ferries, harbor tugs, fishing boats, offshore service boats, displacement hull yachts, or short trip coastal freighters. Typical operation ranges from 2000 to 4000 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.