C12 ACERT®

MARINE PROPULSION ENGINE

715 mhp (705 bhp) 526 bkW

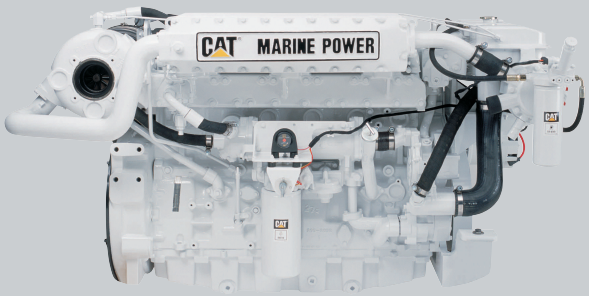


Image shown may not reflect actual engine

STANDARD ENGINE EQUIPMENT

- Corrosion resistant sea water aftercooler
- MEUI fuel system
- Air cleaner/fumes disposal system (closed)
- Self priming gear driven sea water pump with rubber impeller
- Gear-driven jacket water pump
- Thermostat and housing
- Watercooled exhaust manifold and turbocharger
- Fuel priming pump and flexible fuel lines
- Fuel transfer pump
- Electric service meter
- Oil filter and oil level gauge (RH or LH service)
- Crankcase breather
- Front support mounting system
- Single groove crankshaft pulley
- 11 tooth spline SAE A hydraulic pump drive
- 12 or 24 V electronic shutdown (energized-to-run)
- Vibration damper and guard
- Service tool and customer wiring connector
- Center sump oil pan

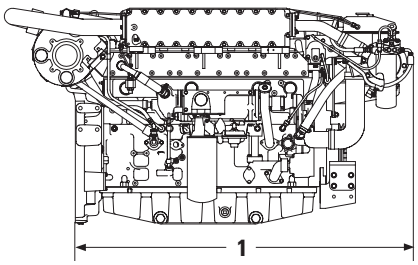
SPECIFICATIONS

I-6, 4-Stroke-Cycle-Diesel

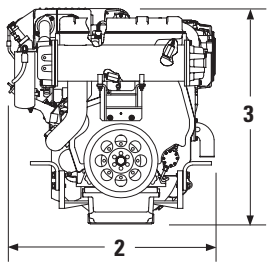
- EPA Tier 2 Commercial/Recreational, IMO compliant
- 11.95 L (729.23 cu. in.) displacement
- 2300 rpm rated speed
- 130.0 mm (5.12 in) bore x 150.0 mm (5.91 in) stroke
- Turbocharged-aftercooled aspiration
- Electronically governed
- Heat exchanger cooled
- Refill capacity
  - Cooling system: 45.0 L (11.9 gal)
  - Lube oil system: 28.0 L (7.4 gal)
- SAE NO. 1 flywheel and flywheel housing
- 113 flywheel teeth
- Counterclockwise rotation from flywheel end
- 250-hour oil change interval
- Caterpillar Diesel Engine Oil 10W30 or 15W40

DIMENSIONS

Right Side



Front



ENGINE DIMENSIONS & WEIGHT		
(1) Length to Flywheel Housing	1573.9 mm	61.96 in.
(2) Width	968.6 mm	38.13 in.
(3) Height	1008.7 mm	39.71 in.
Weight, Net Dry (approx)	1175 kg	2,590 lb

Note: Do not use these dimensions for installation design. See general dimension drawings for detail (Drawing #2479677). For complete information, please refer to Spec Sheet Wizard.

C12 ACERT®

MARINE PROPULSION ENGINE

CATERPILLAR®

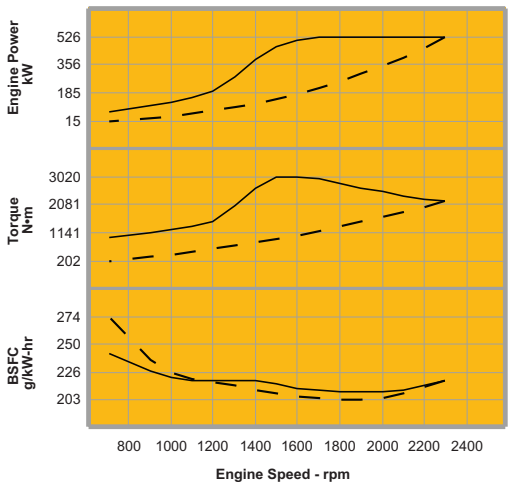
MARINE ENGINE PERFORMANCE

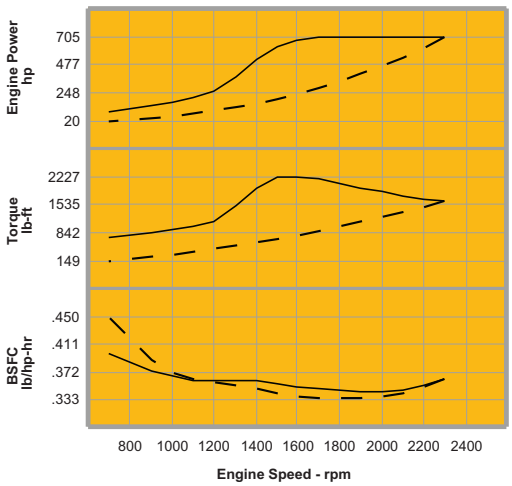
C12 TA ACERT

526 bkW (705 bhp) @ 2300 rpm

E Rating (High Performance) — DM9099-00

EPA T2CR/EU RCD





Metric | Maximum Power — — | Prop Demand | **526 kW**

Performance Data

	Engine Speed rpm	Engine Power kW	Engine Torque N•m	BSFC g/kW-hr	Fuel Rate L/hr
Maximum Power Data	2300	526.0	2184	220.3	138.1
	2200	526.0	2283	214.6	134.6
	2100	526.0	2392	210.5	132.0
	1900	526.0	2644	208.5	130.7
	1800	526.0	2791	209.6	131.4
	1600	506.0	3020	212.3	128.1
	1500	470.0	2992	215.1	120.5
	1300	278.0	2042	219.2	72.6
	1100	155.0	1346	220.1	40.7
	900	108.0	1146	227.9	29.3
	700	70.0	955	242.6	20.2
Prop Demand Data	2300	526.0	2184	220.3	138.1
	2200	460.3	1998	212.5	116.6
	2100	400.4	1821	207.1	98.8
	1900	296.5	1490	202.7	71.7
	1800	252.1	1338	202.7	60.9
	1600	177.1	1057	205.1	43.3
	1500	145.9	929	207.9	36.2
	1300	95.0	698	213.9	24.2
	1100	57.5	500	220.6	15.1
	900	31.5	334	237.2	8.9
	700	14.8	202	273.5	4.8

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

English | Maximum Power — — | Prop Demand | **705 hp**

Performance Data

	Engine Speed rpm	Engine Power hp	Engine Torque lb-ft	BSFC lb/hp-hr	Fuel Rate gph
Maximum Power Data	2300	705.4	1611	.362	36.5
	2200	705.4	1684	.353	35.6
	2100	705.4	1764	.346	34.9
	1900	705.4	1950	.343	34.5
	1800	705.4	2058	.345	34.7
	1600	678.6	2227	.349	33.8
	1500	630.3	2207	.354	31.8
	1300	372.8	1506	.360	19.2
	1100	207.9	993	.362	10.8
	900	144.8	845	.375	7.7
	700	93.9	704	.399	5.3
Prop Demand Data	2300	705.4	1611	.362	36.5
	2200	617.3	1474	.349	30.8
	2100	536.9	1343	.340	26.1
	1900	397.6	1099	.333	18.9
	1800	338.1	987	.333	16.1
	1600	237.5	780	.337	11.4
	1500	195.7	685	.342	9.6
	1300	127.4	515	.352	6.4
	1100	77.1	369	.363	4.0
	900	42.2	246	.390	2.4
	700	19.8	149	.450	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.