C7 ACERT®

MARINE PROPULSION ENGINE

460 mhp (454 bhp) 339 bkW

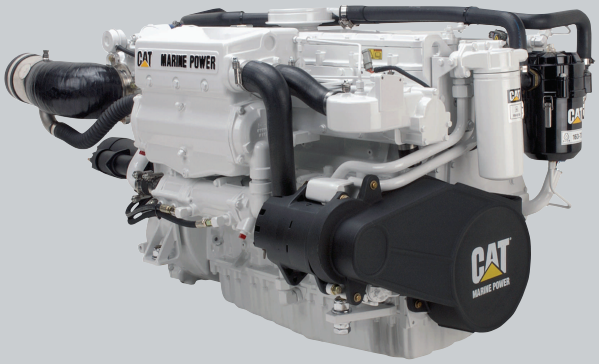


Image shown may not reflect actual engine

STANDARD ENGINE EQUIPMENT

- Sea water aftercooler
- HEUI fuel system
- Air cleaner with fumes disposal (closed system)
- Gear driven auxiliary sea water pump
- Transmission oil cooler and block heater
- Vibration damper and guard
- Watercooled exhaust manifold and turbocharger
- RH or LH service fuel filter
- Crankcase breather
- Electronic overspeed shutoff
- 12V rear facing electric starting motor
- 12V 51 amp belt driven charging alternator and mounting
- Expansion tank
- Thermostat and housing
- Oil level gauge, oil filler, & oil pan drain (RH or LH service)
- 1 mm (.04 in) front mount below the centerline of the engine
- Fumes disposal routed to turbocharger inlet

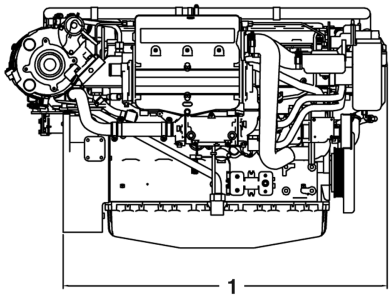
SPECIFICATIONS

I-6, 4-Stroke-Cycle-Diesel

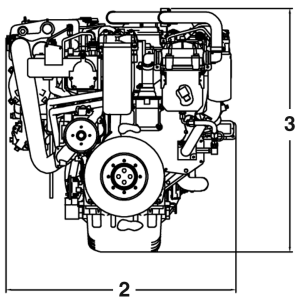
- EPA Tier 2 Commercial/Recreational, IMO compliant
- 7.2 L (442 cu in) displacement
- 2800 rpm rated engine speed
- 110 mm (4.33 in) bore x 127 mm (5.0 in) stroke
- Turbocharged and aftercooled aspiration
- Electronically governed
- Heat exchanger coole
- Refill capacity
  - Cooling system: 39 L (10.3 U.S. gal)
  - Lube Oil system: 25 L (6.6 U.S. gal)
- SAE. No. 3 flywheel and flywheel housing
- 126 flywheel teeth
- Counterclockwise rotation from flywheel end
- 200-hour oil change interval
- Caterpillar Diesel Engine Oil 10W30 or 15W40

DIMENSIONS

Right Side



Front



ENGINE DIMENSIONS & WEIGHT		
(1) Length to Flywheel Housing	1225.4 mm	48.24 in.
(2) Width	936.7 mm	36.88 in.
(3) Height	921.5 mm	36.28 in.
Weight, Net Dry (approx)	799 kg	1,761 lb

Note: Do not use these dimensions for installation design. See general dimension drawings for detail (Drawing #2863205). For complete information, please refer to Spec Sheet Wizard.

C7 ACERT®

MARINE PROPULSION ENGINE

CATERPILLAR®

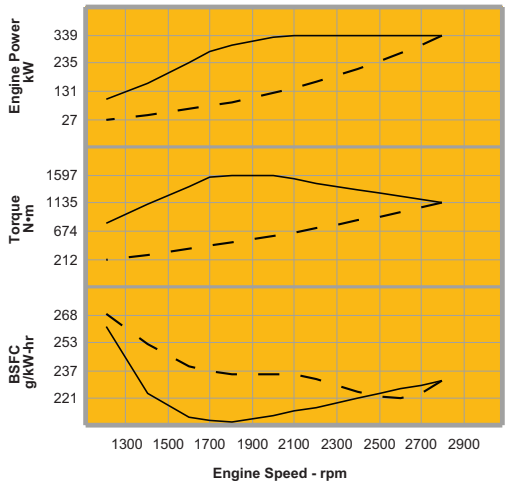
MARINE ENGINE PERFORMANCE

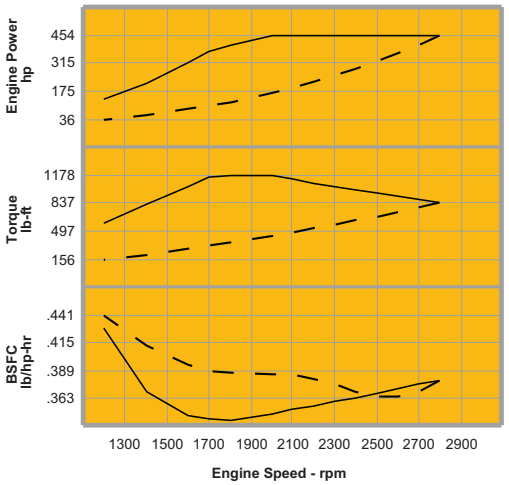
C7 TA ACERT

339 bkW (454 bhp) @ 2800 rpm

E Rating (High Performance) — DM8122-00

EPA T2CR/EU NC





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	2800	338.6	1155	230.5	93.0
	2700	338.6	1197	228.1	92.1
	2600	338.6	1244	225.9	91.2
	2500	338.6	1293	223.4	90.2
	2400	338.6	1347	220.6	89.0
	2200	338.6	1470	216.1	87.2
	2100	338.6	1540	213.8	86.3
	1800	301.1	1597	208.2	74.7
	1700	278.1	1562	208.5	69.1
	1400	163.0	1112	224.0	43.5
	1200	99.7	793	261.0	31.0
Prop Demand Data	2800	338.5	1154	230.5	93.0
	2700	303.5	1073	224.0	81.1
	2600	271.0	995	221.2	71.5
	2500	240.9	920	221.6	63.7
	2400	213.2	848	224.4	57.0
	2200	164.2	713	231.9	45.4
	2100	142.8	649	234.6	39.9
	1800	89.9	477	235.4	25.2
	1700	75.8	426	236.5	21.4
	1400	42.3	289	251.4	12.7
	1200	26.6	212	268.3	8.5

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	2800	454.1	852	.379	24.6
	2700	454.1	883	.375	24.3
	2600	454.1	917	.371	24.1
	2500	454.1	954	.367	23.8
	2400	454.1	993	.363	23.5
	2200	454.1	1084	.355	23.0
	2100	454.1	1136	.351	22.8
	1800	403.8	1178	.342	19.7
	1700	372.9	1152	.343	18.3
	1400	218.6	820	.368	11.5
	1200	133.7	585	.429	8.2
Prop Demand Data	2800	453.9	851	.379	24.6
	2700	407.0	791	.368	21.4
	2600	363.4	734	.364	18.9
	2500	323.1	679	.364	16.8
	2400	285.9	625	.369	15.1
	2200	220.2	526	.381	12.0
	2100	191.5	479	.386	10.5
	1800	120.6	352	.387	6.7
	1700	101.6	314	.389	5.7
	1400	56.7	213	.413	3.4
	1200	35.7	156	.441	2.2

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.