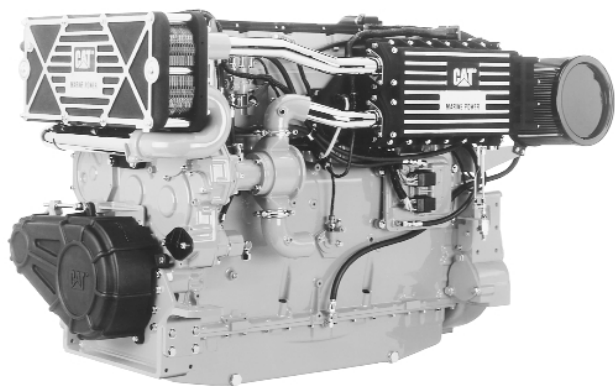




Marine Propulsion Engine 3406E

597 kW (800 bhp) 811 mhp @ 2300 rpm



Shown with Accessory Equipment

SPECIFICATIONS

I-6, 4-Stroke-Cycle-Diesel

Emissions	IMO compliant
Displacement	14.6 L (893 cu. in.)
Bore	137.2 mm (5.4 in.)
Stroke	165.1 mm (6.5 in.)
Aspiration	Turbocharged-Aftercooled
Governor	Electronic
Engine Weight, Net Dry (approx)	1586 kg (3497 lb)
Capacity for Liquids	
Cooling System	43.7 L (11.4 U.S. gal)
Lube Oil System (refill)	49 L (13 U.S. gal)
Oil Change Interval	250 hr
Caterpillar DEO 10W30 or 15W40	
Rotation (from flywheel end)	Counterclockwise

STANDARD EQUIPMENT

Air Inlet System

Corrosion resistant sea water aftercooler, air cleaner with fumes disposal system

Cooling System

Self-priming sea water pump with rubber impeller, gear driven jacket water pump, titanium plate heat exchanger with expansion tank, coolant recovery system, thermostat and housing

Exhaust System

Watercooled manifold and turbocharger; round flanged outlet, 152 mm (6 in.)

Flywheel and Flywheel Housing

SAE No. 1 (113 teeth)

Fuel System

Fuel priming pump; fuel transfer pump; fuel filter — RH service on port, LH service on starboard; flexible fuel lines

Instruments

24-volt instrument panel with start/stop switch, emergency stop button, maintenance light, diagnostic light, warning light, 15-amp and 3-amp breakers, starter motor magnetic switch, electric service meter

Lube System

Crankcase breather; engine oil cooler; oil level gauge and oil filter — RH service on port, LH service on starboard; shallow oil pan; gear driven oil pump

Mounting System

Adjustable front support

General

Vibration damper and guard, Caterpillar yellow paint, lifting eyes

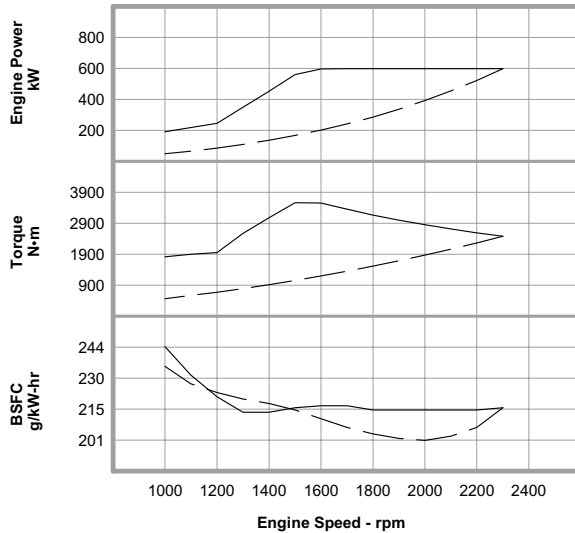
ACCESSORY EQUIPMENT

- Aftercooler Condensate Drain
- Air Starting Motor
- 12V 51 Amp, 12V 105 Amp Alternator
- Cruise Kits
- 12V/24V DC Converter
- Digital Tachometer
- Double Wall Fuel Lines and Drain
- Dress-Up Kit
- Duplex Fuel Filters
- Electric Starting Motor
- Engine Monitoring System
- Engine-to-Engine Wiring Harness
- Engine Vision Display System
- Exhaust Elbow, Dry or Watercooled
- Exhaust Pipe, Flange, Flexible Fittings
- Front Enclosed Clutch
- Front Stub Shaft
- Fuel Cooler
- GPS Interface Module
- Heavy-Duty Front Support
- Hydraulic Pump Drive
- 12V Instrument Panel
- Jacket Water Heater
- Light-Duty Air Cleaner
- Marine Power Display
- OEM Wiring Harness
- Primary Fuel Filter/Water Separator
- Pulley and Damper
- Spare Parts Kit
- Throttle Position Sensor
- Transmission Oil Cooler
- Vibration Isolation Mounting

PERFORMANCE CURVES

E Rating — DM6122-00

IMO Compliant

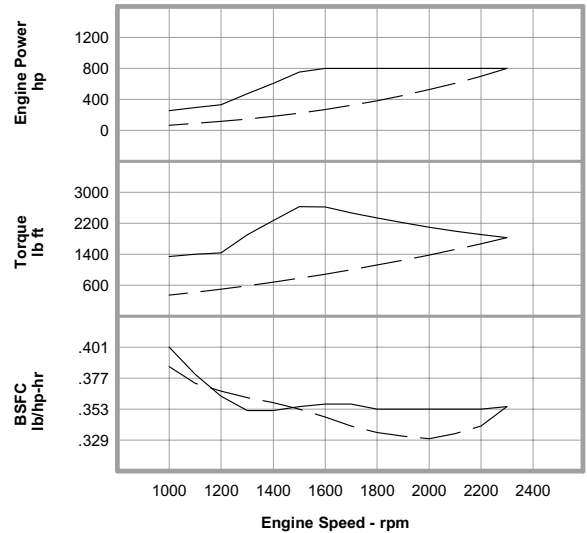


Metric **Maximum Power** ——— **597 kW**
 Prop Demand - - - - -

Performance Data

	Engine Speed rpm	Engine Power kW	Engine Torque N·m	BSFC g/kW-hr	Fuel Rate L/hr
Maximum Power Data	2300	597	2477	216.0	153.5
	2200	597	2589	215.0	152.9
	2100	597	2712	215.0	152.6
	2000	597	2848	215.0	152.6
	1900	597	2998	215.0	152.8
	1800	597	3165	215.0	153.1
	1700	597	3351	217.0	153.9
	1600	596	3558	217.0	154.5
	1500	560	3566	216.0	144.1
	1400	452	3084	214.0	115.2
	1300	350	2572	214.0	89.3
Prop Demand Data	1200	245	1951	221.0	64.5
	1100	218	1894	231.0	60.2
	1000	190	1817	244.0	55.4
	2300	597	2477	216.0	153.5
	2200	522	2266	207.0	129.0
	2100	454	2065	203.0	109.6
	2000	392	1873	201.0	94.0
	1900	336	1690	202.0	80.9
	1800	286	1517	204.0	69.5
	1700	241	1353	207.0	59.5
	1600	201	1199	211.0	50.6
1500	166	1053	215.0	42.4	
1400	135	918	218.0	34.9	
1300	108	791	220.0	28.3	
1200	85	674	223.0	22.5	
1100	65	567	227.0	17.7	
1000	49	468	235.0	13.7	

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

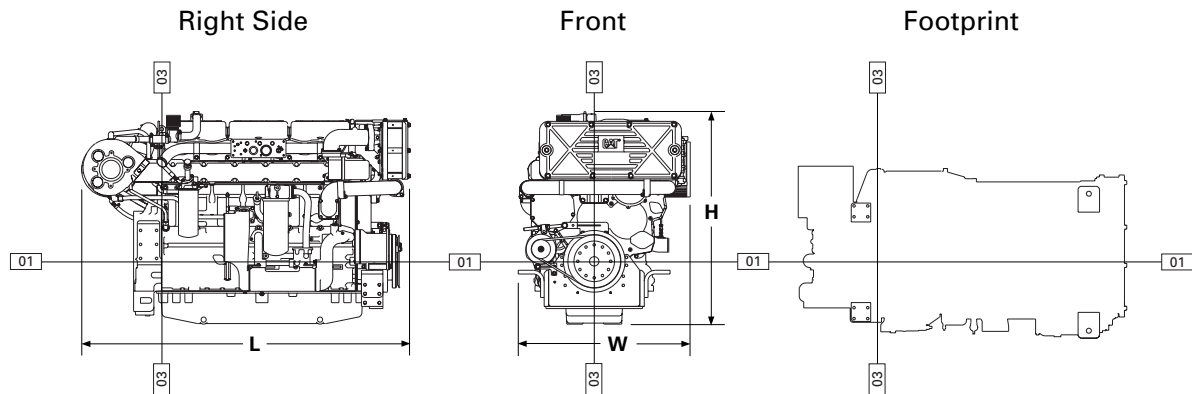


English **Maximum Power** ——— **800 hp**
 Prop Demand - - - - -

Performance Data

	Engine Speed rpm	Engine Power hp	Engine Torque lb ft	BSFC lb/hp-hr	Fuel Rate gph
Maximum Power Data	2300	800	1827	.355	40.6
	2200	800	1909	.353	40.4
	2100	800	2000	.353	40.3
	2000	800	2100	.353	40.3
	1900	800	2211	.353	40.4
	1800	800	2334	.353	40.4
	1700	800	2471	.357	40.7
	1600	800	2624	.357	40.8
	1500	751	2630	.355	38.1
	1400	606	2275	.352	30.4
	1300	470	1897	.352	23.6
Prop Demand Data	1200	329	1439	.363	17.0
	1100	293	1397	.380	15.9
	1000	255	1340	.401	14.6
	2300	800	1827	.355	40.6
	2200	700	1671	.340	34.1
	2100	609	1523	.334	29.0
	2000	526	1381	.330	24.8
	1900	451	1246	.332	21.4
	1800	383	1119	.335	18.4
	1700	323	998	.340	15.7
	1600	269	884	.347	13.4
1500	222	777	.353	11.2	
1400	180	677	.358	9.2	
1300	144	583	.362	7.5	
1200	114	497	.367	5.9	
1100	88	418	.373	4.7	
1000	66	345	.386	3.6	

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*

	mm	in.		
Overall Length	1822.7	71.8		
Length from front to rear face of block	1379.4	54.3		
Length from rear face of block to back of flywheel housing	155.1	6.1		
Overall Height	1177.8	46.4		
Height from crankshaft centerline to top of engine	829.8	32.7		
Height from crankshaft centerline to bottom of oil pan	348.0	13.7		
Overall Width	953.6	37.5		
Width from crankshaft centerline to port side (left side)	520.1	20.5		
Width from crankshaft centerline to starboard side (right side)	421.0	16.6		
			Front	Rear
	mm	in.	mm	in.
Customer mounting hole diameter	27.5	1.1		5/8
Width from crankshaft centerline to mounting holes	380.0	15.0	252.4	9.9
			312.8	12.3
Length from rear face of block to mounting holes	1168.5	46.0	57.9	2.3
			134.1	5.3

*Illustrations and dimensions from drawing: 137-6875 Heat Exchanger Cooled.

RATING DEFINITIONS AND CONDITIONS

E Rating –

Typical Application . . . Planing hull vessels such as pleasure craft, harbor patrol, harbor master, and some fishing and pilot boats.

Typical Hours Per Year 250 to 1000
 Time at Rated Speed Up to 8%
 Load Factor Up to 30%
 Typical Time at Full Load 1/2 out of 6 hours

Rated Speed 2300 rpm
 Maximum Cruise Speed 2100 rpm
 Maximum Continuous Cruise Speed 1900 rpm

Engine Performance Parameters

Power ±3%
 Specific Fuel Consumption ±3%
 Fuel Rate ±5%

Ratings are based on SAE J1228/ISO8665 standard conditions of 100 kPa (29.61 in. Hg), 25°C (77°F), and 30% relative humidity. These ratings also apply at ISO3046/1, DIN6271/3, and BS5514 conditions of 100 kPa (29.61 in. Hg), 27°C (81°F), and 60% relative humidity.

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.



3406E MARINE PROPULSION — 597 bkW (800 bhp)

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.

TMI Reference No.: DM6122-00 (6-19-01)

Materials and specifications are subject to change without notice.

The International System of Units (SI) is used in this publication.

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