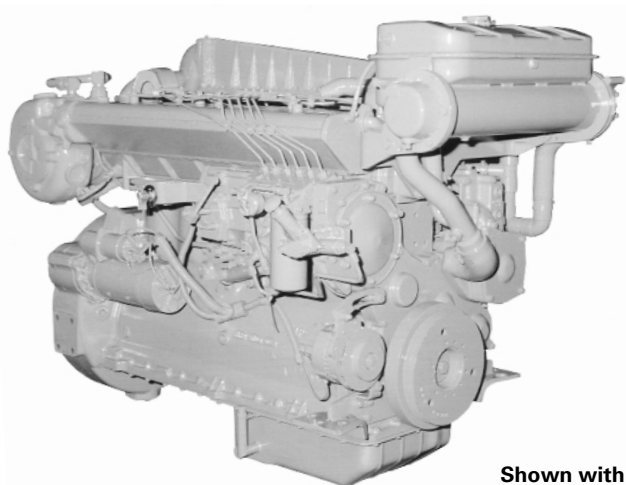




Marine Propulsion Engine 3306B

250 bkW (335 bhp) 340 mhp @ 2200 rpm



Shown with
Accessory Equipment

STANDARD EQUIPMENT

Air Inlet System

Dry, regular duty air cleaner

Cooling System

Gear driven, self-priming auxiliary sea water pump with rotary rubber impeller; gear driven centrifugal jacket water pump; engine oil cooler; expansion tank; engine mounted heat exchanger with removable tube bundle and replaceable copper-nickel tubes; thermostats and housing

Exhaust System

Watercooled manifold and turbocharger; dry elbow and flange, 152 mm (6 in.)

Flywheel and Flywheel Housing

SAE No. 1 (156 teeth)

Fuel System

Fuel priming pump, fuel transfer pump, fuel filter, flexible fuel lines

Instruments

Fuel pressure gauge, service meter, heavy-duty standard SAE rotation tachometer drive

Lube System

Top-mounted crankcase breather, oil filter, LH oil filler and oil level gauge, oil pan

Mounting System

Front support

General

Vibration damper and guard, Caterpillar yellow paint, lifting eyes

SPECIFICATIONS

I-6, 4-Stroke-Cycle-Diesel

Emissions IMO compliant
Displacement 10.5 L (641 cu. in.)
Bore 121 mm (4.8 in.)
Stroke 152 mm (6.0 in.)
Aspiration Turbocharged-Aftercooled
Governor Hydra-mechanical
Engine Weight, Net Dry (approx) . . 1120.9 kg (2469 lb)
Capacity for Liquids
Cooling System 18.2 L (4.8 U.S. gal)
Lube Oil System (refill) 27.4 L (7.2 U.S. gal)
Oil Change Interval 250 hr
Caterpillar DEO 10W30 or 15W40
Rotation (from flywheel end) Counterclockwise

ACCESSORY EQUIPMENT

Air Cleaner Rain Cap

Air Starting Motor

12V 51 Amp, 24V 35 Amp, 24V 60 Amp Alternator

Auxiliary Drive Pulley

Digital Tachometer

Double Wall Fuel Lines and Drain

Duplex Fuel Filter

Electric Overspeed Shutoff

Electric Starting Motor

Engine-Mounted Instrument Panel

Ether Starting Aid

Exhaust Elbow, Pipe, Rain Cap, Flexible Fittings

Front Enclosed Clutch

Fuel Ratio Control

Hydraulic Pump Drive

Magnetic Pickup

Manual Shutoff Lever

Manual Sump Pump

Pilot House Instrument Panel

Primary Fuel Filter/Water Separator

Remote-Mounted Pilot House Controls

Remote Positive Locking Governor Control

RH Oil Level Gauge

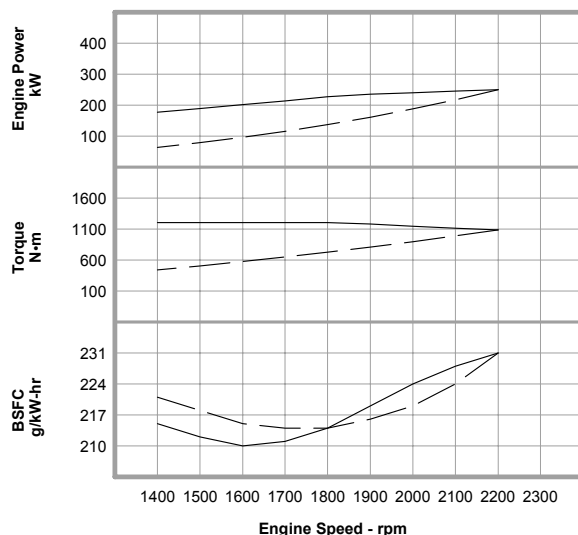
Shutoff Solenoid — ETR

Spare Parts Kit

PERFORMANCE CURVES

D Rating — DM6053-00

IMO Compliant

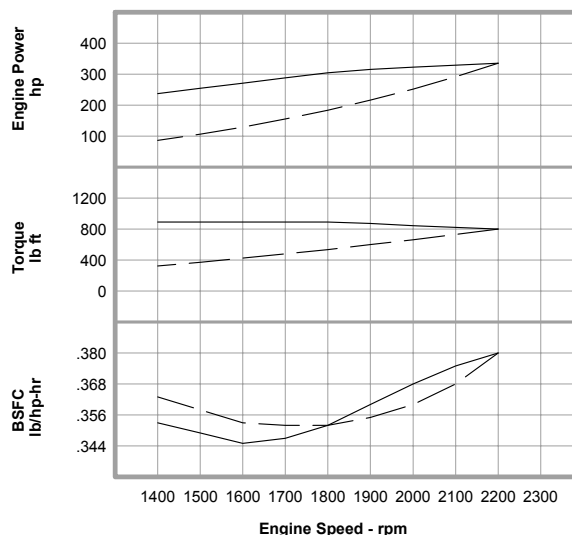


Metric Maximum Power **250 kW**
Prop Demand

Performance Data

	Engine Speed rpm	Engine Power kW	Engine Torque N·m	BSFC g/kW-hr	Fuel Rate L/hr
Maximum Power Data	2200	250	1085	231.0	68.7
	2100	245	1114	228.0	66.6
	2000	240	1145	224.0	64.1
	1900	235	1181	219.0	61.3
	1800	227	1204	214.0	57.8
	1700	214	1204	211.0	53.8
	1600	202	1204	210.0	50.5
	1500	189	1204	212.0	47.7
	1400	177	1205	215.0	45.2
Prop Demand Data	2200	250	1085	231.0	68.7
	2100	217	989	224.0	58.0
	2000	188	897	219.0	49.0
	1900	161	809	216.0	41.4
	1800	137	726	214.0	34.9
	1700	115	648	214.0	29.4
	1600	96	574	215.0	24.7
	1500	79	504	218.0	20.6
	1400	64	439	221.0	17.0

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



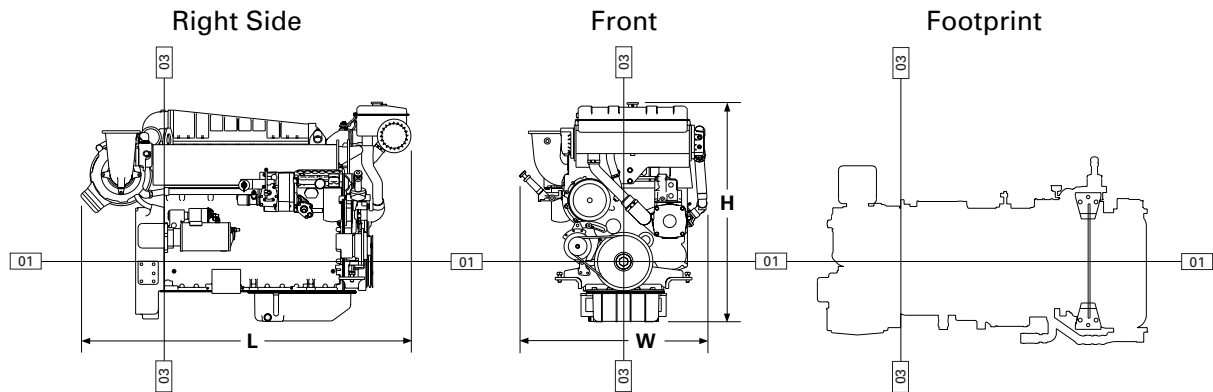
English Maximum Power **335 hp**
Prop Demand

Performance Data

	Engine Speed rpm	Engine Power hp	Engine Torque lb ft	BSFC lb/hp-hr	Fuel Rate gph
Maximum Power Data	2200	335	800	.380	18.1
	2100	329	822	.375	17.6
	2000	322	844	.368	16.9
	1900	315	871	.360	16.2
	1800	304	888	.352	15.3
	1700	288	888	.347	14.2
	1600	271	888	.345	13.3
	1500	254	888	.349	12.6
	1400	237	889	.353	11.9
Prop Demand Data	2200	335	800	.380	18.1
	2100	292	729	.368	15.3
	2000	252	662	.360	12.9
	1900	216	597	.355	10.9
	1800	184	535	.352	9.2
	1700	155	478	.352	7.8
	1600	129	423	.353	6.5
	1500	106	372	.358	5.4
	1400	86	324	.363	4.5

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	1719.2	67.7
Length from rear face of block to front of engine	1285.0	50.6
Length from rear face of block to back of flywheel housing	149.8	5.9
Overall Height	1141.0	44.9
Height from crankshaft centerline to top of engine	827.7	32.6
Height from crankshaft centerline to bottom of oil pan	313.3	12.3
Overall Width	977.6	38.5
Width from crankshaft centerline to port side (left side)	434.8	17.1
Width from crankshaft centerline to starboard side (right side)	542.8	21.4
Front		
	mm	in.
Customer mounting hole diameter	19.8	0.8
Width from crankshaft centerline to mounting holes	307.8	12.1
Length from rear face of block to mounting holes	935.7	36.8
	1018.3	40.1

*Illustrations and dimensions from drawing: 118-7821

RATING DEFINITIONS AND CONDITIONS

D Rating –

Typical Application . . . Planing hull vessels such as offshore patrol boats, customs, police, and some fire and fishing boats. Also used for bow and stern thrusters.

Typical Hours Per Year 1000 to 3000
Time at Rated Speed Up to 16%
Load Factor Up to 50%
Typical Time at Full Load 2 out of 12 hours

Rated Speed 2200 rpm
Maximum Cruise Speed 2050 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.



3306B MARINE PROPULSION — 250 bkW (335 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.: DM6053-00 (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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