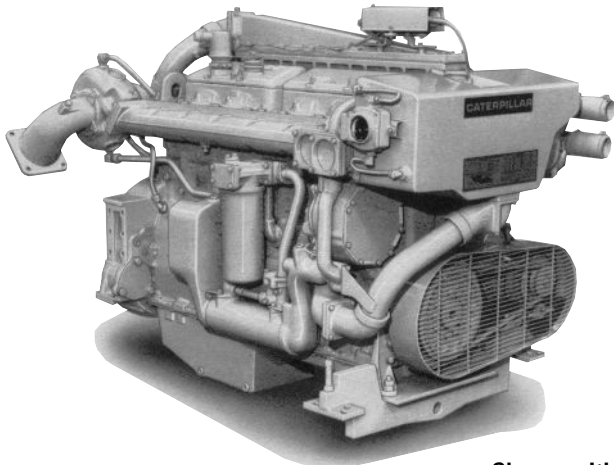




Marine Propulsion Engine 3406C

328 bkW (440 bhp) 446 mhp @ 2100 rpm



Shown with Accessory Equipment

STANDARD EQUIPMENT

Air Inlet System

Corrosion resistant aftercooler core; dry, regular duty cleaner with service indicator

Cooling System

Gear driven self-priming auxiliary sea water pump with rotary rubber impeller (heat exchanger engines only), gear driven centrifugal jacket water pump, expansion tank, transmission oil cooler, engine oil cooler, thermostats and housing with 92°C (198°F) full open temperature

Exhaust System

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

Flywheel and Flywheel Housing

SAE No. 1 (113 teeth)

Fuel System

Fuel priming pump, fuel transfer pump, LH fuel filter, fuel ratio control, flexible fuel lines

Instruments

Heavy-duty standard SAE rotation tachometer drive; LH instrument panel with service meter; oil pressure, water temperature, and fuel pressure gauges

Lube System

Crankcase breather, oil cooler, RH oil filter and oil level gauge, manual oil sump pump

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	14.6 L (893 cu. in.)
Bore	137 mm (5.4 in.)
Stroke	165 mm (6.5 in.)
Aspiration	Turbocharged-Aftercooled
Governor	Hydra-mechanical
Engine Weight, Net Dry (approx)	
Heat Exchanger Cooled	1470 kg (3240 lb)
Keel Cooled	1435 kg (3165 lb)
Capacity for Liquids	
Cooling System (Engine only)	36.2 L (9.4 U.S. gal)
Lube Oil System (refill)	34.1 L (9.0 U.S. gal)
Oil Change Interval	250 hr
Caterpillar DEO 10W30 or 15W40	
Rotation (from flywheel end)	Counterclockwise

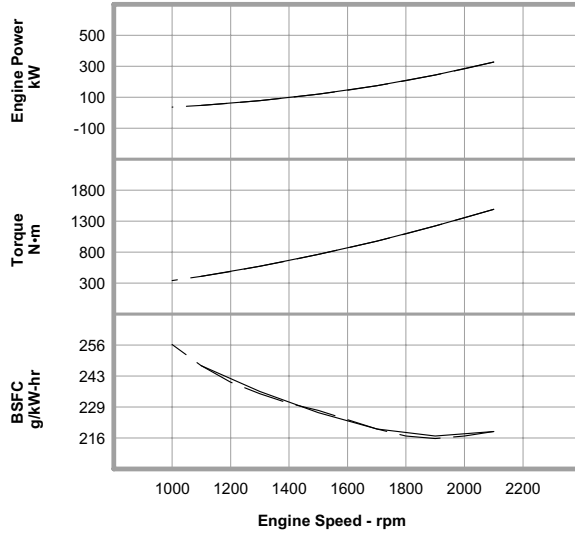
ACCESSORY EQUIPMENT

- Air Inlet Adapter, 152 mm (6 in.)
- Air Starting Motor
- Alarm Contactors
- 12V 51 Amp, 12V 105, 24V 35 Amp, 24V 60 Amp
- Alternator
- Auxiliary Drive Pulley
- Auxiliary and Hydraulic Pump Drive
- Cruise Kits
- Digital Tachometer
- Double Wall Fuel Lines
- Dry Charge Coolant Conditioner
- Duplex Fuel Filters
- Electric Service Meter
- Electric Shutoffs
- Electric Starting Motor
- Exhaust Elbow, Pipe, Flange, Flexible Fittings
- Heat Exchanger
- 12-Hole Instrument Panel
- 4-Hole Instrument Panel
- Magnetic Pickup
- Pilot House Instrument Panel
- Primary Fuel Filter/Water Separator
- Remote-Mounted Pilot House Controls
- Remote Positive Locking Governor Control
- Spare Parts Kit
- Solenoid Shutoffs
- Starting Aid
- Throttle Position Sensor

PERFORMANCE CURVES

B Rating — DM6098-01

IMO Compliant

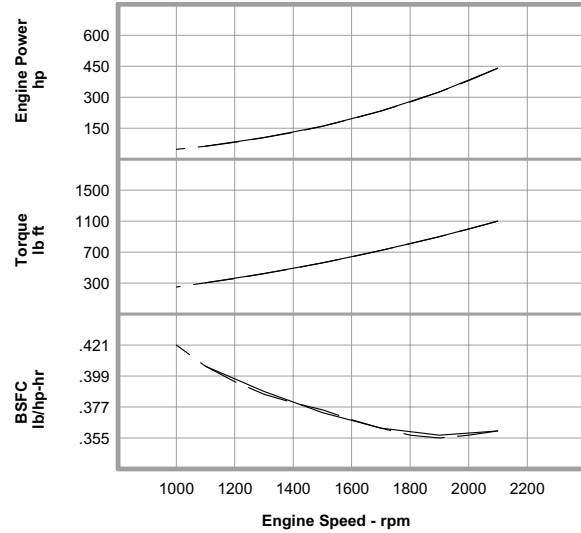


Metric Maximum Power
Prop Demand 328 kW

Performance Data

	Engine Speed rpm	Engine Power kW	Engine Torque N-m	BSFC g/kW-hr	Fuel Rate L/hr
Maximum Power Data	2100	328	1492	219.0	85.6
	1900	243	1221	217.0	62.8
	1700	174	977	220.0	45.7
	1500	120	761	227.0	32.3
	1300	78	572	236.0	21.9
	1100	47	409	247.0	13.9
	Prop Demand Data	2100	328	1492	219.0
2000		284	1354	217.0	73.3
1900		243	1222	216.0	62.6
1800		207	1096	217.0	53.3
1700		174	978	220.0	45.6
1600		145	866	224.0	38.7
1500		120	761	228.0	32.4
1400		97	663	231.0	26.8
1300		78	572	235.0	21.8
1200		61	487	240.0	17.5
1100		47	409	247.0	13.9
1000		35	338	256.0	10.8

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

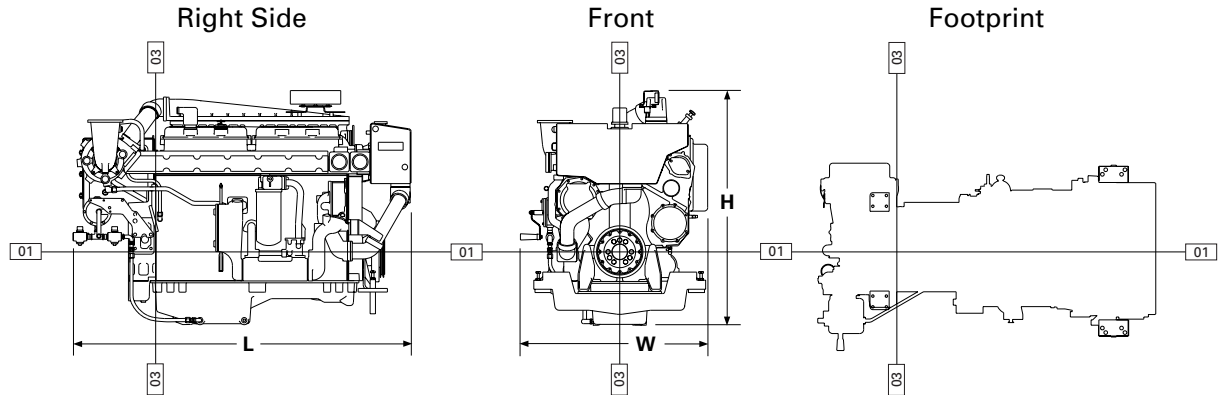


English Maximum Power
Prop Demand 440 hp

Performance Data

	Engine Speed rpm	Engine Power hp	Engine Torque lb ft	BSFC lb/hp-hr	Fuel Rate gph
Maximum Power Data	2100	440	1100	.360	22.6
	1900	326	901	.357	16.6
	1700	233	721	.362	12.1
	1500	160	561	.373	8.5
	1300	104	422	.388	5.8
	1100	63	302	.406	3.7
	Prop Demand Data	2100	440	1100	.360
2000		380	999	.357	19.4
1900		326	901	.355	16.5
1800		277	808	.357	14.1
1700		233	721	.362	12.0
1600		195	639	.368	10.2
1500		160	561	.375	8.6
1400		130	489	.380	7.1
1300		104	422	.386	5.8
1200		82	359	.395	4.6
1100		63	302	.406	3.7
1000		47	249	.421	2.9

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	1901.2	74.9		
Length from front to rear face of block	1435.3	56.5		
Overall Height	1315.4	51.8		
Height from crankshaft centerline to top of engine	903.2	35.6		
Height from crankshaft centerline to bottom of oil pan	412.2	16.2		
Overall Width	1052.6	41.4		
Width from crankshaft centerline to port side (left side)	494.3	19.5		
Width from crankshaft centerline to starboard side (right side)	558.3	22.0		
			Front	Rear
	mm	in.	mm	in.
Customer mounting hole diameter	20.5	0.8	15.9	5/8
Width from crankshaft centerline to mounting holes	431.8	17.0	252.4	9.9
	457.2	18.0	312.8	12.3
Length from rear face of block to mounting holes	1156.1	44.8	57.9	2.3
	1175.1	46.3	134.1	5.3
	1264.1	49.8		
	1283.1	50.5		

*Illustrations and dimensions from drawing: 180-6365.

RATING DEFINITIONS AND CONDITIONS

B Rating –

Typical Application . . . Vessels such as midwater trawlers, purse seiners, crew and supply boats, ferries, and towboats where locks, sandbars, and curves dictate frequent slowing, and engine load and speed are constant with some cycling.

- Typical Hours Per Year 3000 to 5000
- Time at Rated Speed Up to 80%
- Load Factor 40 to 80%
- Typical Time at Full Load 10 out of 12 hours
- Rated Speed 2100 rpm
- Maximum Cruise Speed 2000 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.



3406C MARINE PROPULSION — 328 bkW (440 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.: DM6098-01 (6-29-01)

Materials and specifications are subject to change without notice.

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

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