

**3508B****1065 mhp (1050
bhp) 783 bkW****MARINE PROPULSION**

Image shown may not reflect
actual Engine

SPECIFICATIONS**V-8, 4-Stroke-Cycle-Diesel**

Displacement.....	34.53 L (2,107.15 in ³)
Rated Engine Speed.....	1600
Bore.....	170.0 mm (6.69 in)
Stroke.....	190.0 mm (7.48 in)
Aspiration.....	Turbocharged-Aftercooled
Governor.....	Electronic
Cooling System.....	Heat Exchanger
Weight, Net Dry (approx.).....	5,533 kg (12,198 lb)
Refill Capacity	
Cooling System.....	102.7 L (27.1 Gal)
Lube Oil System.....	219.6 L (58.0 gal)
Oil Change Interval.....	500 hrs
Caterpillar Diesel Engine Oil 10W30 or 15W40	
Standard Sump Oil Pan	
Rotation (from flywheel end).....	Counterclockwise
Flywheel and Flywheel Housing.....	SAE NO. 0
Flywheel Teeth.....	151

STANDARD ENGINE EQUIPMENT**Air Inlet System**

Corrosion resistant coated separate circuit aftercooler core, regular duty air cleaners with service indicator, dual turbochargers

Cooling System

Auxiliary fresh water pump, non-self-priming centrifugal auxiliary sea water pump, gear driven centrifugal jacket water pump, expansion tank, engine oil cooler, thermostats and housing

Exhaust System

Dry gas-tight exhaust manifolds with thermo-laminated heat shields, dual turbochargers with watercooled bearings and thermo-laminated heat shields, vertical exhaust outlet

Fuel System

Electronic Unit Injector fuel system, RH fuel filter with service indicators, fuel transfer pump

Instrumentation

Engine mounted instrument panel with four position switch, alarm horn, overspeed shutdown notification light, emergency stop notification light, secondary ECM "Ready" light, secondary ECM "Active" light, graphical display unit for analog or digital display of: oil and fuel pressure, oil and fuel filter differential, system DC voltage, exhaust and water temperature, air inlet restriction, service meter, engine speed, fuel consumption (total and instantaneous)

Lube System

Top mounted crankcase breather, RH oil filter with service indicators, RH oil level gauge, RH oil filler, gear type oil pump, standard sump oil pan

Mounting System

Ledge type engine length mounting rails

Power Take-Offs

Accessory drive on lower RH and lower LH, two-sided front housing

Protection System

ADEM II electronic monitoring system with customer programmable engine deration strategies, emergency stop push button

General

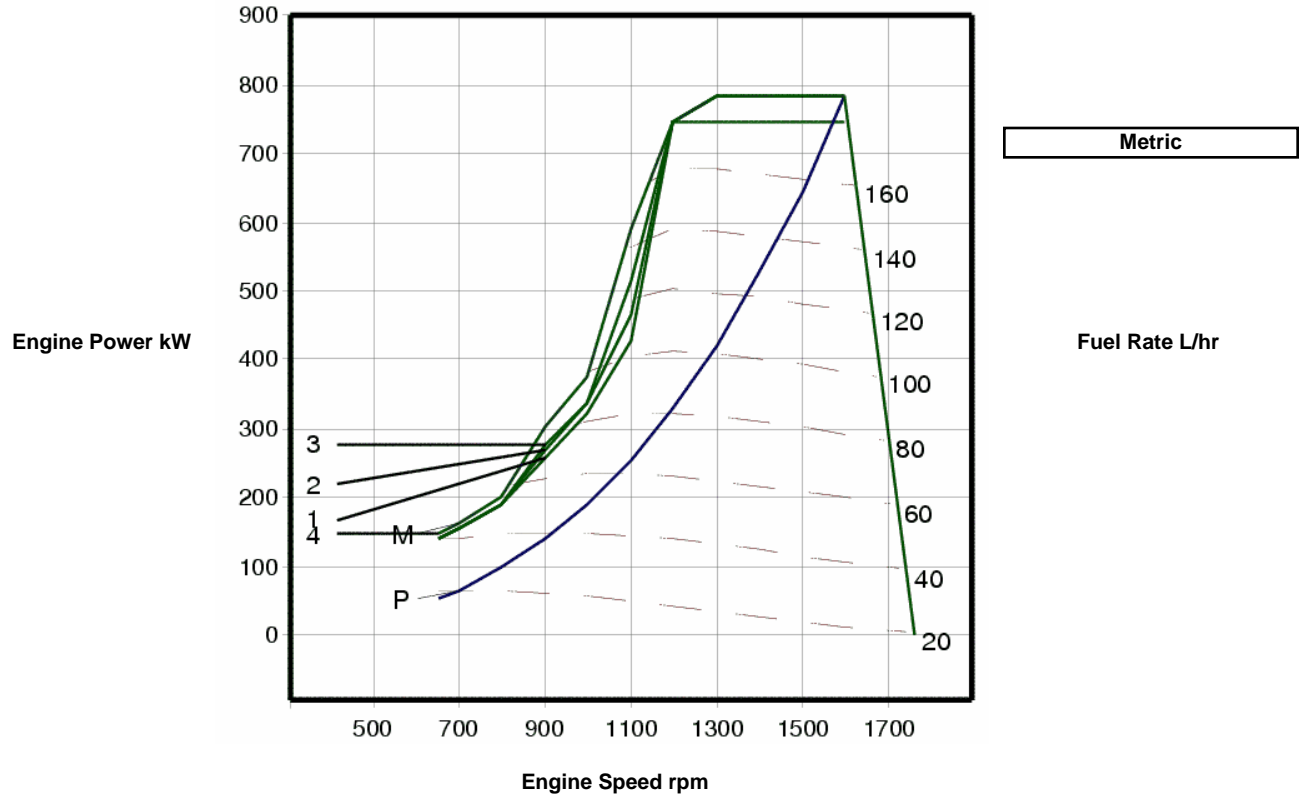
Vibration damper and guard, Caterpillar yellow paint, lifting eyes (Engines for heat exchanger cooling do NOT include heat exchanger. Keel cooling conversions available.)

ISO Certification

Factory-designed systems built at Caterpillar
ISO 9001:2000 certified facilities

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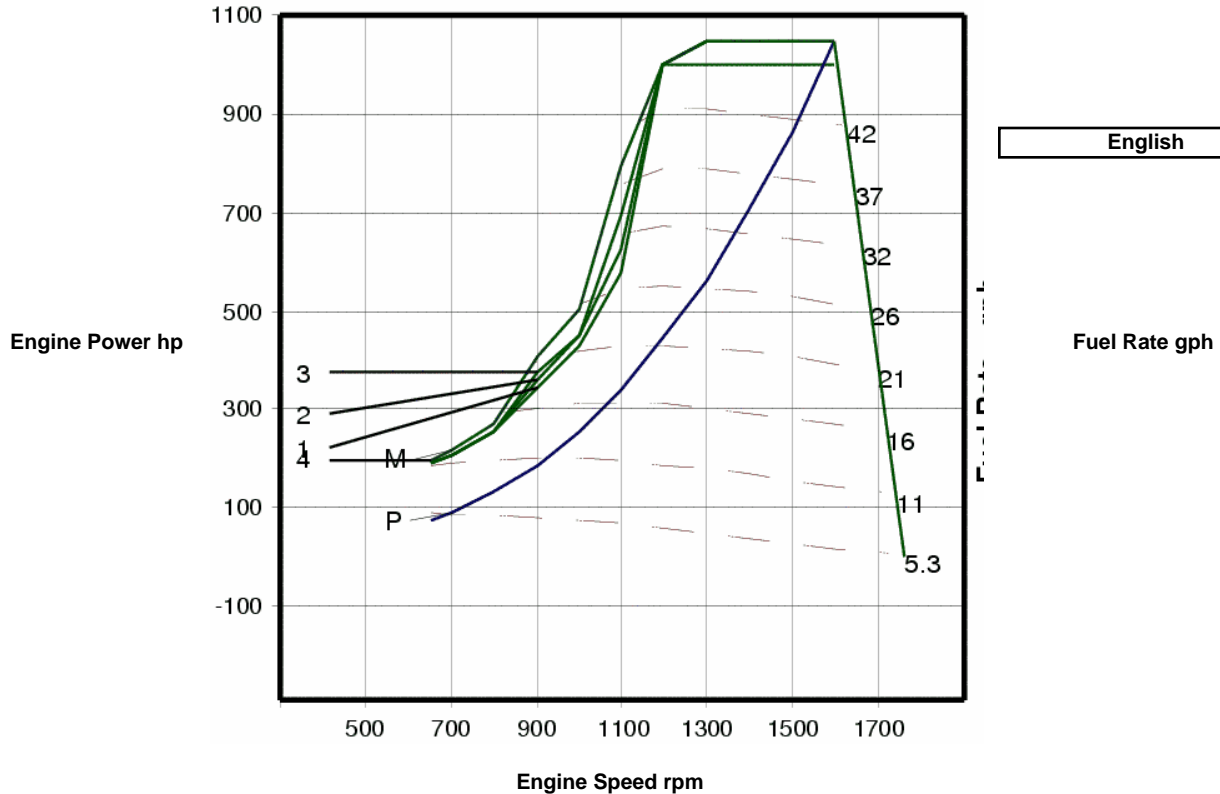
PERFORMANCE CURVES**B-RATING - DM6912-01****Aftercooler Temperature 30° C (86° F)**

Engine Speed rpm	Engine Power kW	Engine Torque N-m	BSFC g/kW-hr	Fuel Rate L/hr	Engine Speed rpm	Engine Power kW	Engine Torque N-m	BSFC g/kW-hr	Fuel Rate L/hr
Zone 1 Curve 1					Max Limit Curve 4				
1600	746	4452	201.2	179.0	1600	783	4673	200.8	187.4
1400	746	5088	198.1	176.1	1400	783	5341	197.2	184.1
1200	746	5936	196.3	174.5	1200	746	5936	195.3	173.7
1000	321	3065	213.4	81.6	1000	374	3571	215.5	96.1
800	189	2256	231.8	52.2	800	202	2411	234.8	56.5
650	142	2086	241.7	40.9	650	147	2160	243.9	42.7
Zone 2 Curve 2					Prop Demand Curve P				
1600	783	4673	200.8	187.4	1600	783	4673	200.8	187.4
1400	783	5341	197.2	184.1	1400	524.5	3578	204.2	127.7
1200	746	5936	195.6	173.9	1200	330.3	2629	208.2	82.0
1000	336	3209	213.5	85.5	1000	191.2	1825	218.5	49.8
800	189	2256	232	52.3	800	97.9	1168	238.4	27.8
650	142	2086	241.7	40.9	650	52.5	771	277.2	17.3
Zone 3 Curve 3									
1600	783	4673	200.8	187.4	1600	783	4673	200.8	187.4
1400	783	5341	197.2	184.1	1400	783	5341	197.2	184.1
1200	746	5936	195.4	173.7	1200	746	5936	195.3	173.7
1000	336	3209	213.7	85.6	1000	374	3571	215.5	96.1
800	189	2256	232.3	52.3	800	202	2411	234.8	56.5
650	142	2086	241.7	40.9	650	147	2160	243.9	42.7

NOTE: Curve P is a cubic prop demand curve with 3.0 exponent for displacement hulls only.

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PERFORMANCE CURVES**B-RATING - DM6912-01****Aftercooler Temperature 30° C (86° F)**

Engine Speed rpm	Engine Power hp	Engine Torque lb ft	BSFC lb/hp-hr	Fuel Rate gph	Engine Speed rpm	Engine Power hp	Engine Torque lb ft	BSFC lb/hp-hr	Fuel Rate gph
Zone 1 Curve 1					Max Limit Curve 4				
1600	1000	3284	.331	47.3	1600	1050	3447	.330	49.5
1400	1000	3753	.326	46.5	1400	1050	3939	.324	48.6
1200	1000	4378	.323	46.1	1200	1000	4378	.321	45.9
1000	430	2261	.351	21.6	1000	502	2634	.354	25.4
800	253	1664	.381	13.8	800	271	1778	.386	14.9
650	190	1539	.397	10.8	650	197	1593	.401	11.3
Zone 2 Curve 2					Prop Demand Curve P				
1600	1050	3447	.330	49.5	1600	1050	3447	.330	49.5
1400	1050	3939	.324	48.6	1400	703	2639	.336	33.7
1200	1000	4378	.322	45.9	1200	443	1939	.342	21.7
1000	451	2367	.351	22.6	1000	256	1346	.359	13.2
800	253	1664	.381	13.8	800	131	861	.392	7.3
650	190	1539	.397	10.8	650	70	569	.456	4.6
Zone 3 Curve 3									
1600	1050	3447	.330	49.5	1600	1050	3447	.330	49.5
1400	1050	3939	.324	48.6	1400	1050	3939	.324	48.6
1200	1000	4378	.321	45.9	1200	1000	4378	.321	45.9
1000	451	2367	.351	22.6	1000	502	2634	.354	25.4
800	253	1664	.382	13.8	800	271	1778	.386	14.9
650	190	1539	.397	10.8	650	197	1593	.401	11.3

NOTE: Curve P is a cubic prop demand curve with 3.0 exponent for displacement hulls only.



RATING DEFINITIONS AND CONDITIONS

B Rating (Heavy Duty) -

% Load Factor: 40 to 80

% Time at Rated RPM: up to 40

Typical Time at Full Load: 10 hours out of 12

Typical Hour/Year: 3000 to 5000

Typical Applications: For vessels operating at rated load and rated speed up to 80% of the time with some load cycling (40% to 80% load factor).

Typical applications could include but are not limited to vessels such as mid-water trawlers, purse seiner, crew and supply boats, ferries, or towboats. Typical operation ranges from 3000 to 5000 hours per year.

Power

at declared engine speed is in accordance with ISO3046-1:2002E. Caterpillar maintains ISO9001:1994/QS-9000 approved engine test facilities to assure accurate calibration of test equipment. Electronically controlled engines are set at the factory at the advertised power corrected to standard ambient conditions. The published fuel consumption rates are in accordance with ISO3046-1:2002E.

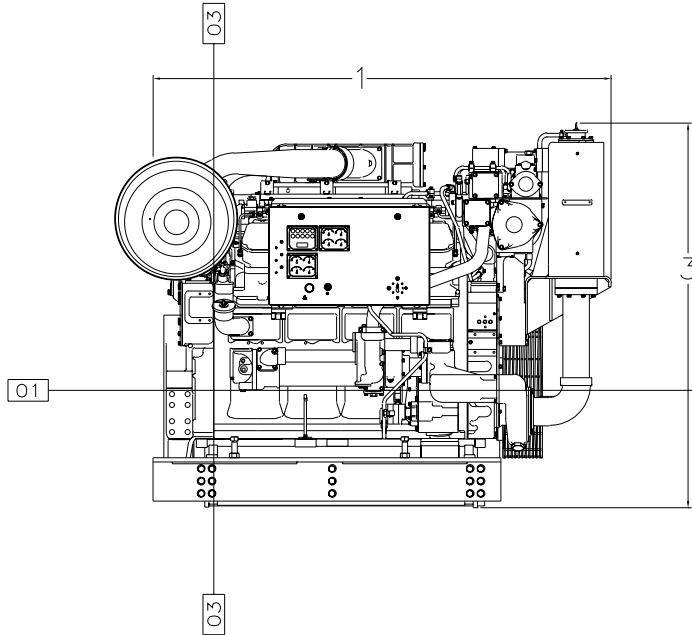
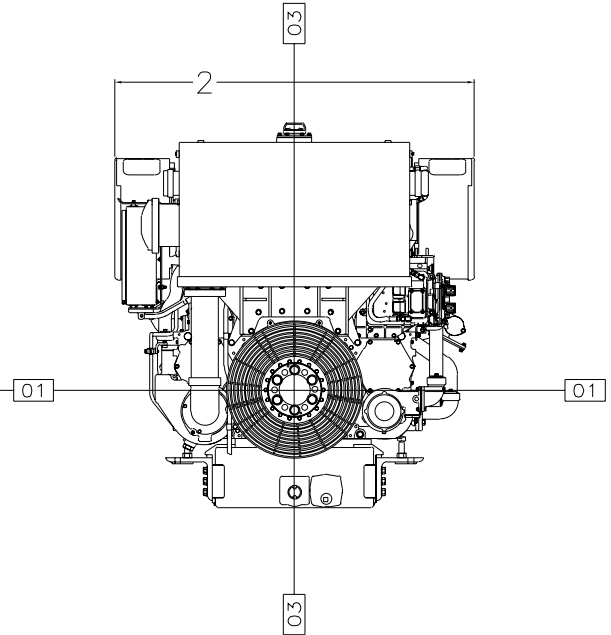
Fuel rates

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.

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 manufacturer's engines. Actual engine performance may vary according to the particular application of the engine and operating conditions beyond Caterpillar's control.

Power produced at the flywheel will be within standard tolerances up to 49° C (120° 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.

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Right Side**Front**

Engine Dimensions		
(1) Length to Flywheel Housing	2786.7 mm	109.71 in
(2) Width	1735.6 mm	68.33 in
(3) Height	1863.7 mm	73.37 in
Weight, Net Dry (approx)	5533 kg	12,198 lb

Note: Do not use for installation design. See general dimension drawings for detail (Drawing # 2339499).



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Performance No.: DM6912-01

Feature Code: 508DM41

U.S. Sourced

21357615

1 April 2013

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

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