CATERPILLAR®

3056
MARINE PROPULSION

153 bkW
(205 bhp)

Image may not reflect actual engine

SPECIFICATIONS

I-6, 4-Stroke-Cycle-Diesel

Emissions	IMO Compliant
Bore	100 mm (3.94 in.)
Stroke	127 mm (5.0 in.)
Displacement	6 L (365 cu. in.)
Aspiration	DITA
Rotation (from flywheel end)	Counterclockwise
Compression Ratio	16.0:1
Capacity for Liquids	
Cooling System	25.3 L (6.5 gal)
Lube Oil System (refill)	15 L (3.9 gal)
Oil Change Interval	400 hr
API CF-4, 15W40, 10W30	
Engine Weight (approx)	609 kg (1,342 lb)

STANDARD ENGINE EQUIPMENT

Air Inlet System
Air cleaner with closed system fumes disposal, sea water aftercooler, dry insulated turbocharger, thermostart air inlet heater

Charging System
Charging alternator (12-volt, 70 ampere or 24-volt, 40 ampere)

Control System
Mechanical governor

Cooling System
Gear-driven centrifugal jacket water pump and self-priming sea water pump, heat exchanger with cupro-nickel tube bundle or keel cooling connections, de-aeration expansion tank, integral plate-type engine oil cooler, sea water strainer, thermostat and housing

Exhaust System
Dry insulated turbocharger, watercooled exhaust manifold

Flywheel and Flywheel Housing
SAE No. 3 (126 teeth)

Fuel System
Twin fuel filter

Lube System
Crankcase breather (closed system), twin oil filter, engine-mounted oil sump drain pump, RH service oil level gauge

Mounting System
Adjustable mounts

Protection System
Shutoff solenoid (ETS), alarm switches (high jacket water temperature, low oil pressure)

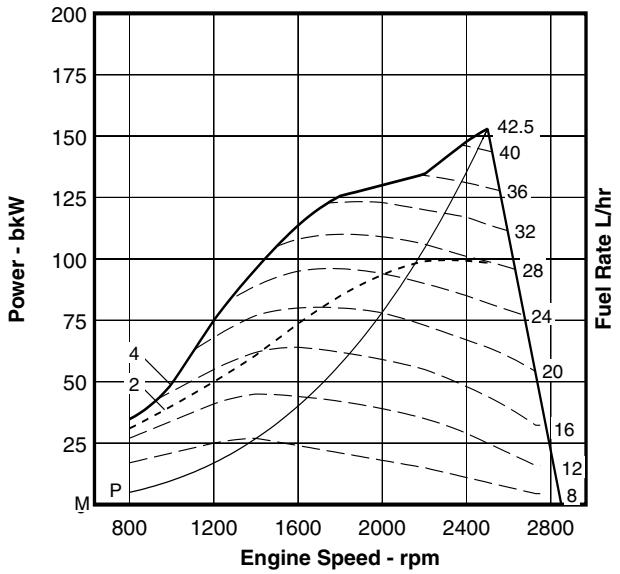
Starting System
Electric starting motor (12-volt and 24-volt)

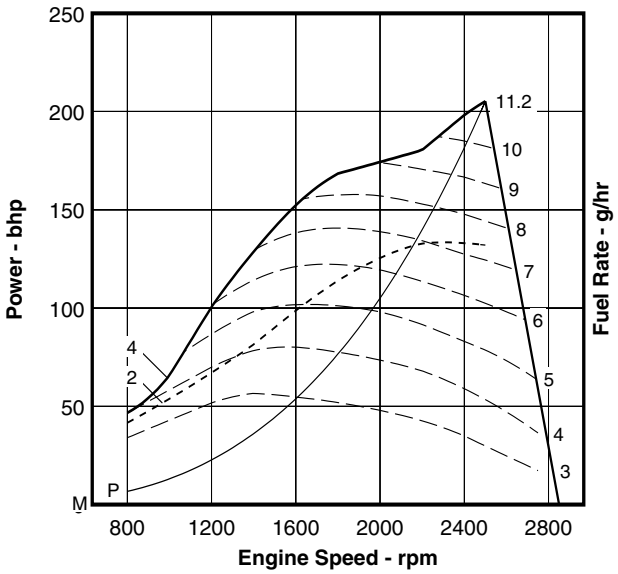
General
Vibration damper, Caterpillar yellow paint, lifting eyes

PERFORMANCE CURVES

C Rating — DM6309-00

IMO Compliant





153 kW | **SI Metric**

Performance Data

	Engine Speed rpm	Engine Power kW	BSFC g/kW-h	Fuel Rate L/h	Boost Press kPa Gauge	Intake Air Flow m^3/min	Exh Manif Temp °C	Exh Gas Flow m^3/min
Zone	2500	98.4	238	27.9	92.9	10.9	416	22.3
Limit	2400	99.2	232	27.4	90.2	10.4	412	21.6
Curve: 2	2200	99.0	222	26.1	85.1	9.5	410	19.4
	2000	93.5	214	23.9	77.7	8.4	408	16.2
	1800	84.9	209	21.2	68.4	7.2	409	12.8
	1600	73.6	208	18.2	55.6	5.9	409	10.6
	1400	60.8	215	15.6	41.1	4.7	408	10.2
	1200	50.0	243	14.5	28.5	3.6	406	11.5
	1000	40.1	294	14.1	16.8	2.5	404	13.9
	800	31.0	367	13.6	6.0	1.5	400	16.4
Zone	2500	153.0	233	42.5	125.6	12.6	563	31.3
Limit	2400	147.8	230	40.5	122.2	12.0	543	29.2
Curve: 4	2200	134.5	224	35.9	112.4	10.8	505	25.0
	2000	130.0	220	34.1	110.6	9.5	515	22.7
	1800	125.6	218	32.6	109.0	8.1	540	20.3
	1600	113.6	219	29.7	96.6	6.9	547	17.5
	1400	95.9	226	25.8	74.0	5.9	542	15.0
	1200	75.0	250	22.3	49.2	4.6	522	11.5
	1000	49.0	295	17.2	22.6	2.6	465	9.9
	800	34.8	365	15.2	7.8	1.5	438	13.4
Prop	2500	153.0	233	42.5	125.6	12.6	563	31.3
Demand	2400	135.4	229	36.9	113.8	11.6	506	27.0
Curve: P	2200	104.3	222	27.6	88.8	9.7	422	20.1
	2000	78.3	219	20.4	66.4	7.8	369	13.0
	1800	57.1	221	15.0	46.9	6.2	327	6.8
	1600	40.1	229	10.9	31.6	5.0	287	7.1
	1400	26.9	246	7.9	21.3	4.0	248	6.8
	1200	16.9	308	6.2	14.6	3.0	208	4.8
	1000	9.8	471	5.5	9.9	2.2	169	3.0
	800	5.0	761	4.5	6.3	1.6	132	2.4

Brake Mean Effective Pressure .....1227 kPa

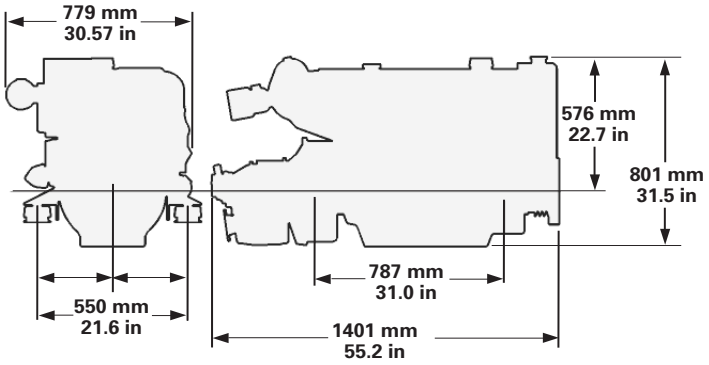
205 hp | **English**

Performance Data

	Engine Speed rpm	Engine Power hp	BSFC lb/hp-h	Fuel Rate gph	Boost Press in.Hg. Gauge	Intake Air Flow cfm	Exh Manif Temp °F	Exh Gas Flow cfm
Zone	2500	132	.392	7.4	27.5	385	781	788
Limit	2400	133	.381	7.2	26.7	367	774	762
Curve: 2	2200	133	.364	6.9	25.2	335	769	685
	2000	125	.352	6.3	23.0	296	766	572
	1800	114	.344	5.6	20.2	254	768	452
	1600	99	.342	4.8	16.5	208	769	374
	1400	82	.353	4.1	12.2	166	767	360
	1200	67	.399	3.8	8.4	127	763	406
	1000	54	.483	3.7	5.0	88	758	491
	800	42	.604	3.6	1.8	53	752	579
Zone	2500	205	.383	11.2	37.2	445	1046	1105
Limit	2400	198	.377	10.7	36.2	423	1010	1031
Curve: 4	2200	180	.368	9.5	33.3	381	941	883
	2000	174	.362	9.0	32.8	335	960	802
	1800	168	.358	8.6	32.3	286	1003	717
	1600	152	.360	7.8	28.6	244	1016	618
	1400	129	.372	6.8	21.9	208	1008	530
	1200	101	.410	5.9	14.6	162	972	406
	1000	66	.486	4.5	6.7	92	869	350
	800	47	.601	4.0	2.3	53	820	473
Prop	2500	205	.383	11.2	37.2	445	1046	1105
Demand	2400	182	.376	9.7	33.7	410	943	953
Curve: P	2200	140	.364	7.3	26.3	343	792	710
	2000	105	.360	5.4	19.7	275	696	459
	1800	77	.363	4.0	13.9	219	620	240
	1600	54	.376	2.9	9.4	177	548	251
	1400	36	.404	2.1	6.3	141	479	240
	1200	23	.506	1.6	4.3	106	406	170
	1000	13	.774	1.5	2.9	78	335	106
	800	7	1.250	1.2	1.9	57	269	85

Brake Mean Effective Pressure .....178 psi

DIMENSIONS



with ZF Hurth HSW 630 A Gearbox

RATING DEFINITIONS AND CONDITIONS

C RATING – Vessels such as ferries, harbor tugs, fishing boats moving at higher speeds out and back (e.g. lobster, crayfish, and tuna), offshore service boats, and also displacement hull yachts and short trip coastal freighters where engine load and speed are cyclical.

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. Ratings are valid for air cleaner inlet temperatures up to and including 50° C (122° F) and for sea water temperatures up to and including 38° C (100° F) at sea level.

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/liter (7.001 lbs/U.S. gal). Fuel consumption shown with all oil, fuel, and water pumps, engine driven. For a “without pumps” condition, deduct approximately 0.5% for each pump not engine driven.

Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for additional information.

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153 bkW (205 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.

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.

TMI Reference No.: DM6309-00
LEHM0722-02 (8-07)