

CATERPILLAR®



Shown with
Accessory Equipment

STANDARD ENGINE EQUIPMENT

- Air inlet
 - aftercooler, air cleaner, watercooled turbocharger
- Cooling
 - thermostat, jacket water pump, sea water pump, integral heat exchanger/expansion tank
- Control system
 - Electronic Control Module (ECM)
 - engine-mounted sensors
- Exhaust
 - watercooled exhaust manifold, 6-inch round flanged outlet
- Flywheel and flywheel housing
 - SAE No. 1
- Fuel
 - secondary filter, priming and transfer pumps
- Instrumentation
 - service meter
- Lubricating
 - oil cooler, oil filter, center sump oil pan

Marine Engine

3196

254-287 bkW/340-385 bhp
1800 rpm

CATERPILLAR® ENGINE SPECIFICATIONS

I-6, 4-Stroke-Cycle-Diesel

Bore — mm (in) 130 (5.1)

Stroke — mm (in)..... 150 (5.9)

Displacement — L (cu in) 12 (729)

Rotation (from flywheel end) .. Counterclockwise

Compression Ratio..... 16:1

Capacity for Liquids — L (U.S. gal)

Cooling System (engine only) 45 (12)

Lube Oil System (refill) 28 (7.5)

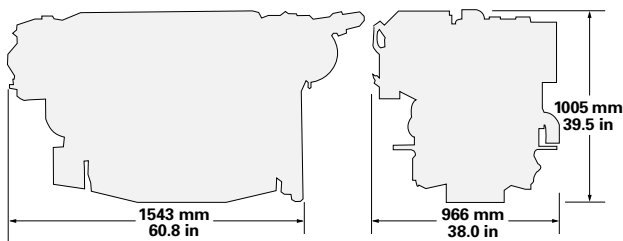
Oil Change Interval 9475 (2500)/fuel

Engine Weight, Net Dry

(approx) — kg (lb) 1177 (2590)

Governor..... Electronic

DIMENSIONS

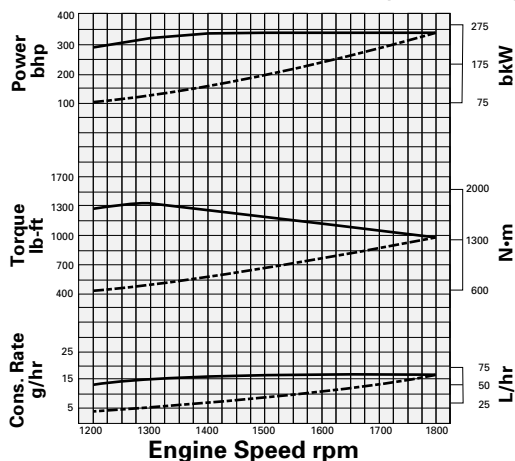


Power produced at the flywheel will be within standard tolerances up to 50° C (122° F) combustion air temperature measured at the air cleaner inlet, and fuel temperature up to 70° C (158° F) measured at the fuel filter base. Power rated in accordance with NMMA procedure as crankshaft power. Reduce crankshaft power by 3% for propeller shaft power.



PERFORMANCE CURVES

A Rating – 1800 rpm 254 bkW (340 bhp) 345 mhp



Prop Demand Curve Data

Speed rpm	Power bkW	Torque N-m	Fuel Cons g/bkW-hr	Fuel Rate L/hr
1800	254	1345	203	61.4
1700	214	1200	203	51.7
1600	178	1063	203	43.0
1500	147	934	202	35.3
1400	119	814	202	28.8
1300	96	701	205	23.3
1200	75	598	209	18.7

Speed rpm	Power bhp	Torque lb-ft	Fuel Cons lb/bhp-hr	Fuel Rate g/hr
1800	340	992	.334	16.2
1700	286	885	.334	13.7
1600	239	784	.333	11.4
1500	197	689	.332	9.3
1400	160	600	.333	7.6
1300	128	517	.336	6.2
1200	101	441	.344	4.9

TMI — DM4041-00

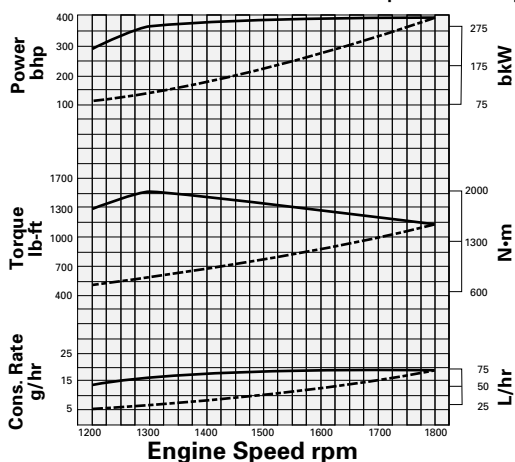
Max Power Curve Data

Power bkW	Torque N-m	Fuel Cons g/bkW-hr	Fuel Rate L/hr
254	1345	203	61.4
254	1424	203	61.4
254	1513	203	61.4
254	1614	203	61.3
252	1716	202	60.7
241	1769	200	57.3
218	1733	193	50.0

Power bhp	Torque lb-ft	Fuel Cons lb/bhp-hr	Fuel Rate g/hr
340	992	.334	16.2
340	1050	.334	16.2
340	1116	.334	16.2
340	1190	.334	16.2
337	1266	.333	16.0
323	1305	.328	15.1
292	1278	.316	13.2

A RATING – For heavy-duty service in vessels such as freighters, tugboats, bottom drag trawlers and deep river towboats where the engine is operated at rated load and speed up to 100% of the time without interruption or load cycling.

B Rating – 1800 rpm 287 bkW (385 bhp) 390 mhp



Prop Demand Curve Data

Speed rpm	Power bkW	Torque N-m	Fuel Cons g/bkW-hr	Fuel Rate L/hr
1800	287	1523	204	69.9
1700	242	1359	204	58.7
1600	202	1203	203	48.7
1500	166	1058	202	39.9
1400	135	921	201	32.4
1300	108	794	202	26.0
1200	85	677	205	20.7

Speed rpm	Power bhp	Torque lb-ft	Fuel Cons lb/bhp-hr	Fuel Rate g/hr
1800	385	1123	.336	18.5
1700	324	1002	.335	15.5
1600	270	887	.333	12.9
1500	223	780	.331	10.5
1400	181	679	.331	8.6
1300	145	586	.332	6.9
1200	114	499	.336	5.5

Max Power Curve Data

Power bkW	Torque N-m	Fuel Cons g/bkW-hr	Fuel Rate L/hr
287	1523	204	69.9
287	1613	204	69.8
287	1713	204	69.6
287	1828	203	69.6
285	1945	203	68.9
270	1980	200	64.2
218	1733	192	50.0

Power bhp	Torque lb-ft	Fuel Cons lb/bhp-hr	Fuel Rate g/hr
385	1123	.336	18.5
385	1190	.335	18.4
385	1263	.335	18.4
385	1348	.334	18.4
382	1435	.333	18.2
362	1460	.329	17.0
292	1278	.316	13.2

B RATING – 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.

- Prop Demand ----- 3.0 Exponent
- Engine Performance Parameters: Power +/- 3%;
Specific Fuel Consumption +/- 3%; Fuel Rate +/- 5%.

RATING DEFINITIONS AND CONDITIONS

Ratings are based on SAE J1228/ISO8665 standard conditions of 100 kPa (29.61 in Hg) and 25° C (77° F). These ratings also apply at ISO3046/1, DIN6271, 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/liter (7.001 lbs/U.S. gal).

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