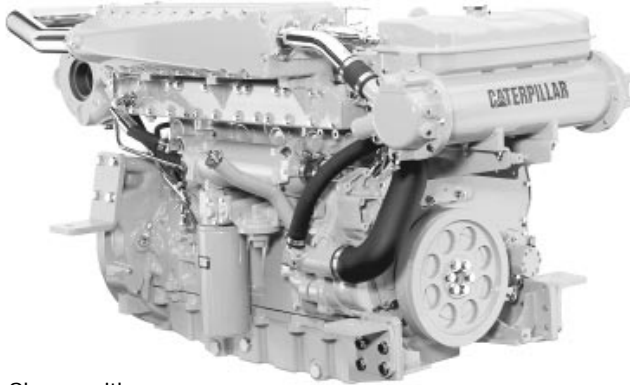




Marine Engine

3176C

425-448 kW/570-600 bhp
2300 rpm



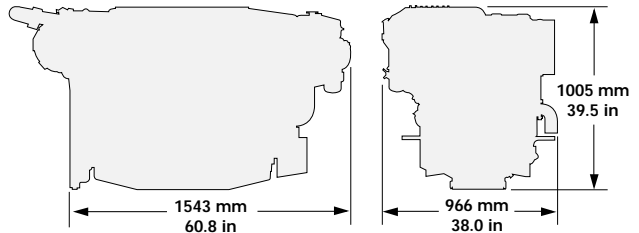
Shown with
Accessory Equipment

CATERPILLAR® ENGINE SPECIFICATIONS

I-6, 4-Stroke-Cycle-Diesel

Bore—mm (in)	125 (4.92)
Stroke—mm (in)	140 (5.51)
Displacement— L (cu in).....	10.3 (629)
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 — L (gal)	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.



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.

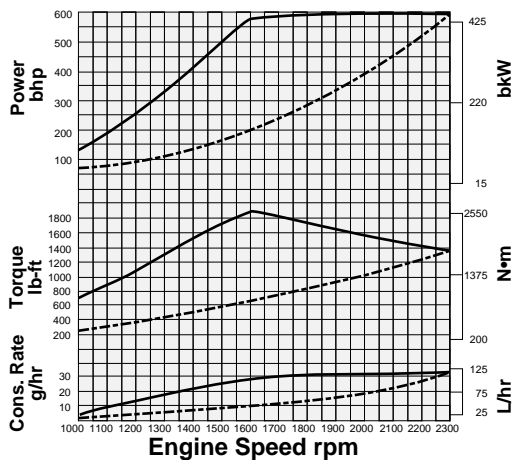
Fuel rates are based on fuel oil of 35° API [16° C (60° F)] gravity having an LHV of 42 780 kJ/kg (18 390 Btu/lb) when used at 29° C (85° F) and weighing 838.9 g/liter (7.001 lbs/U.S. gal).

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



PERFORMANCE CURVES

E Rating – 2300 rpm 448 bkW (600 bhp) 608 mhp



Max Power Curve Data

Speed rpm	Power bkW	Torque N-m	Fuel Cons g/bkW-hr	Fuel Rate L/hr
2300	448	1858	227	121.3
2200	448	1943	223	118.7
2000	448	2137	217	115.8
1800	448	2374	218	116.2
1600	429	2561	219	111.8
1400	312	2128	218	81.2
1200	187	1487	221	49.1
1000	99	941	222	26.1

Prop Demand Curve Data

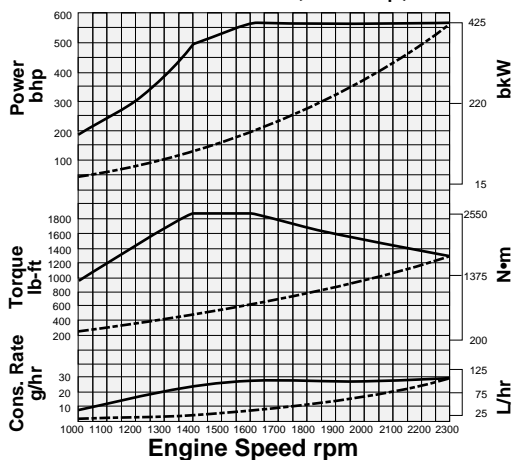
Power bkW	Torque N-m	Fuel Cons g/bkW-hr	Fuel Rate L/hr
448	1858	227	121.3
392	1700	214	100.0
294	1405	204	71.6
215	1138	206	52.6
151	899	213	38.2
101	688	220	26.5
64	506	223	16.9
37	351	232	10.2

Speed rpm	Power bhp	Torque lb-ft	Fuel Cons lb/bhp-hr	Fuel Rate g/hr
2300	600	1370	.374	32.0
2200	600	1433	.366	31.4
2000	600	1576	.357	30.6
1800	600	1751	.358	30.7
1600	575	1889	.359	29.5
1400	418	1570	.359	21.5
1200	251	1097	.362	13.0
1000	132	694	.366	6.9

Power bhp	Torque lb-ft	Fuel Cons lb/bhp-hr	Fuel Rate g/hr
600	1370	.374	32.0
525	1254	.352	26.4
395	1036	.336	18.9
288	839	.338	13.9
202	663	.350	10.1
135	507	.362	7.0
85	373	.366	4.5
49	259	.381	2.7

E RATING – Planing hull vessels such as pleasure craft, harbor patrol, harbor master, and some fishing and pilot boats.

E Rating – 2300 rpm 425 bkW (570 bhp) 578 mhp



Max Power Curve Data

Speed rpm	Power bkW	Torque N-m	Fuel Cons g/bkW-hr	Fuel Rate L/hr
2300	425	1765	222	112.6
2200	425	1845	219	110.7
2000	425	2029	213	108.1
1800	425	2255	214	108.6
1600	425	2537	216	109.2
1400	372	2537	203	90.2
1200	224	1780	203	54.1
1000	140	1339	200	33.4

Prop Demand Curve Data

Power bkW	Torque N-m	Fuel Cons g/bkW-hr	Fuel Rate L/hr
425	1765	222	112.6
372	1614	212	93.9
279	1334	204	68.1
204	1081	206	50.1
143	854	214	36.4
96	654	222	25.3
60	480	224	16.1
35	334	234	9.7

Speed rpm	Power bhp	Torque lb-ft	Fuel Cons lb/bhp-hr	Fuel Rate g/hr
2300	570	1302	.365	29.7
2200	570	1361	.359	29.2
2000	570	1497	.351	28.6
1800	570	1663	.352	28.7
1600	570	1871	.354	28.8
1400	499	1871	.334	23.8
1200	300	1313	.333	14.3
1000	188	988	.329	8.8

Power bhp	Torque lb-ft	Fuel Cons lb/bhp-hr	Fuel Rate g/hr
570	1302	.365	29.7
499	1190	.348	24.8
375	984	.336	18.0
273	797	.339	13.2
192	630	.351	9.6
129	482	.364	6.7
81	354	.368	4.3
47	246	.385	2.6

E RATING – Planing hull vessels such as pleasure craft, harbor patrol, harbor master, and some fishing and pilot boats.

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