



C13 ACERT™
Industrial Engine
Tier 3/Stage IIIA
354 bkW/475 bhp @ 2100 rpm



Image shown may not reflect actual engine

CAT® ENGINE SPECIFICATIONS

I-6, 4-Stroke-Cycle Diesel

Bore.....	130.0 mm (5.12 in)
Stroke.....	157.0 mm (6.18 in)
Displacement.....	12.5 L (762.8 in ³)
Aspiration.....	Turbocharged Aftercooled
Compression Ratio.....	17.3:1
Rotation (from flywheel end).....	Counterclockwise
Weight, Net Dry (approximate kg, lb).....	939 kg, 2070 lb

FEATURES

Emissions

Meets U.S. EPA Tier 3, EU Stage IIIA emission requirements.

Worldwide Supplier Capability

Caterpillar

- Casts engine blocks, heads, and cylinder liners.
- Machines critical components
- Assembles complete engine

Ownership of these manufacturing processes enables Caterpillar to produce high quality, dependable product.

Factory-designed systems built at Caterpillar ISO certified facilities.

Testing

Prototype testing on every model:

- proves computer design
- verifies system torsional stability
- tests functionality on every model

Every Caterpillar engine is dynamometer tested under full load to ensure proper engine performance.

Full Range of Attachments

Wide range of bolt-on system expansion attachments, factory designed and tested.

Unmatched Product Support Offered Through Worldwide Caterpillar Dealer Network

More than 1,500 dealer outlets.

Caterpillar factory-trained dealer technicians service every aspect of your industrial engine.

99.7% of parts orders filled within 24 hours worldwide.

Caterpillar parts and labor warranty.

Preventive maintenance agreements available for repair before failure options.

Scheduled Oil Sampling program matches your oil sample against Caterpillar set standards to determine:

- internal engine component condition
- presence of unwanted fluids
- presence of combustion by-products

Web Site

For all your industrial power requirements, visit www.cat-industrial.com.



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STANDARD ENGINE EQUIPMENT

Air Inlet System

Air to air aftercooled (ATAAC)
Turbocharged

Control System

Electronic governing, PTO speed control
Programmable ratings
Cold mode start strategy
Automatic altitude compensation
Power compensation for fuel temperature
Programmable low and high idle and total engine limit
Electronic diagnostics and fault logging
Engine monitoring system
J1939 Broadcast (diagnostic and engine status)
ADEM™ A4

Cooling System

Thermostats and housing, vertical outlet
Jacket water pump, centrifugal
Water pump, inlet

Exhaust System

Exhaust manifold, dry
Optional exhaust outlet

Flywheels and Flywheel Housing

SAE No. 1 Flywheel housing

Fuel System

MEUI injection
Fuel filter, secondary (2 micron high performance)
Fuel transfer pump
Fuel priming pump
ACERT™ Technology

Lube System

Crankcase breather
Oil cooler
Oil filler
Oil filter
Oil pan front sump
Oil dipstick
Oil pump (gear driven)

General

Paint, Caterpillar Yellow
Vibration damper
Lifting eyes



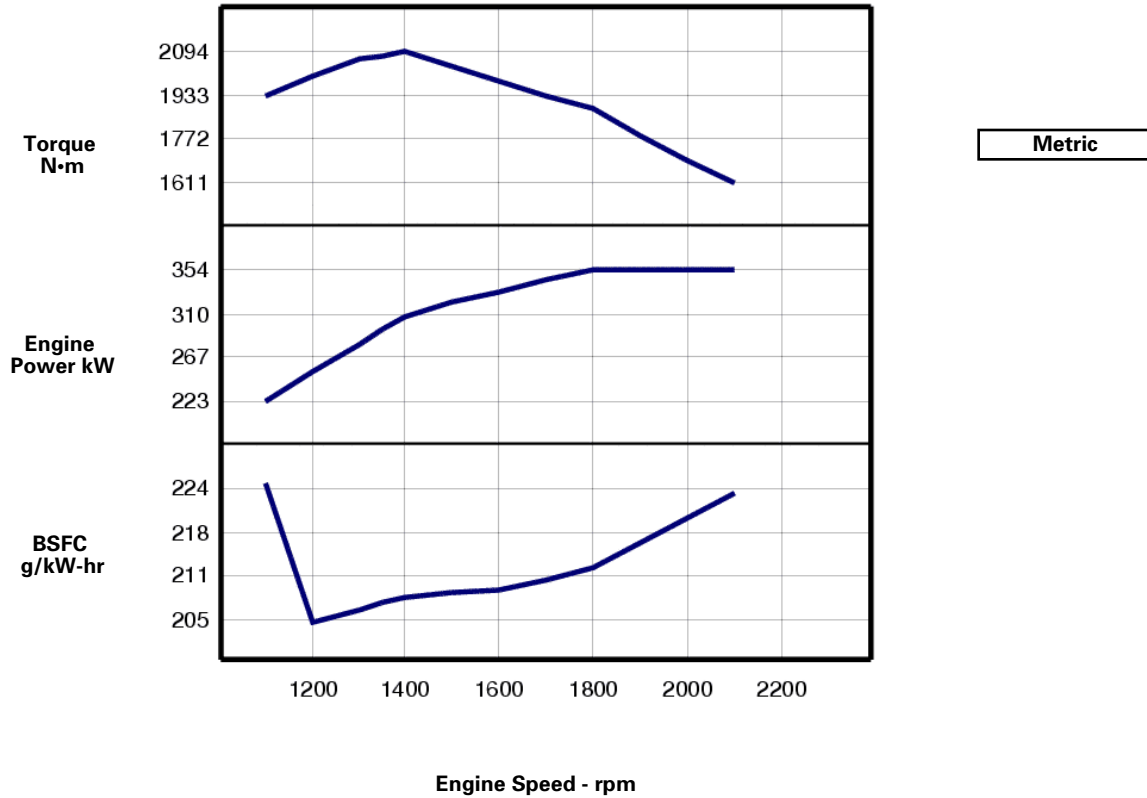
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PERFORMANCE CURVES

IND - D - DM7688-02



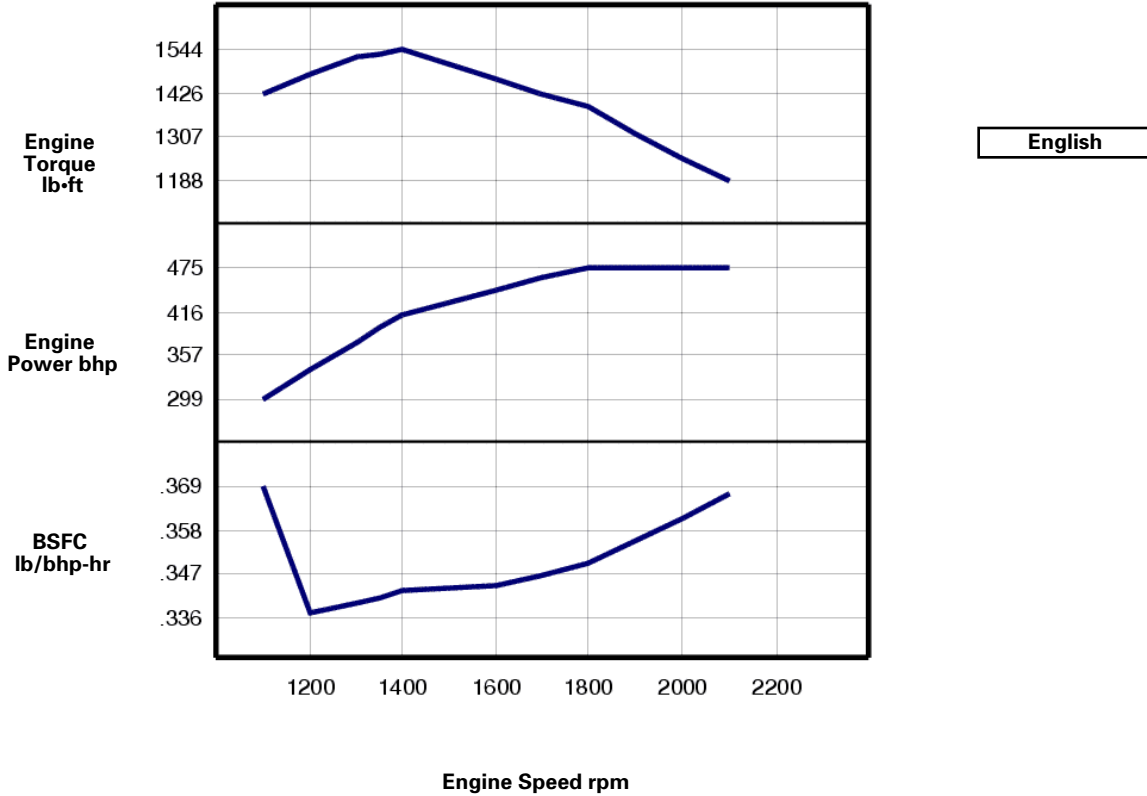
Engine Speed rpm	Engine Power kW	Torque N·m	BSFC g/kW-hr	Fuel Rate L/hr
2100	354	1611	223.2	94.3
2000	354	1692	219.6	92.7
1900	354	1781	216.1	91.3
1800	354	1880	212.5	89.8
1700	344	1933	210.6	86.4
1600	333	1987	209.3	83.1
1500	321	2041	208.9	79.8
1400	307	2094	208.4	76.3
1350	294	2078	207.5	72.7
1300	281	2062	206.5	69.1
1200	251	1998	204.9	61.3
1100	223	1933	224.4	59.6



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Engine Speed rpm	Engine Power bhp	Engine Torque lb-ft	BSFC lb/bhp-hr	Fuel Rate gal/hr
2100	475	1188	.367	24.9
2000	475	1248	.361	24.5
1900	475	1314	.355	24.1
1800	475	1387	.349	23.7
1700	462	1426	.346	22.8
1600	446	1466	.344	22.0
1500	430	1505	.343	21.1
1400	412	1544	.343	20.2
1350	394	1533	.341	19.2
1300	376	1521	.339	18.3
1200	337	1474	.337	16.2
1100	299	1426	.369	15.7

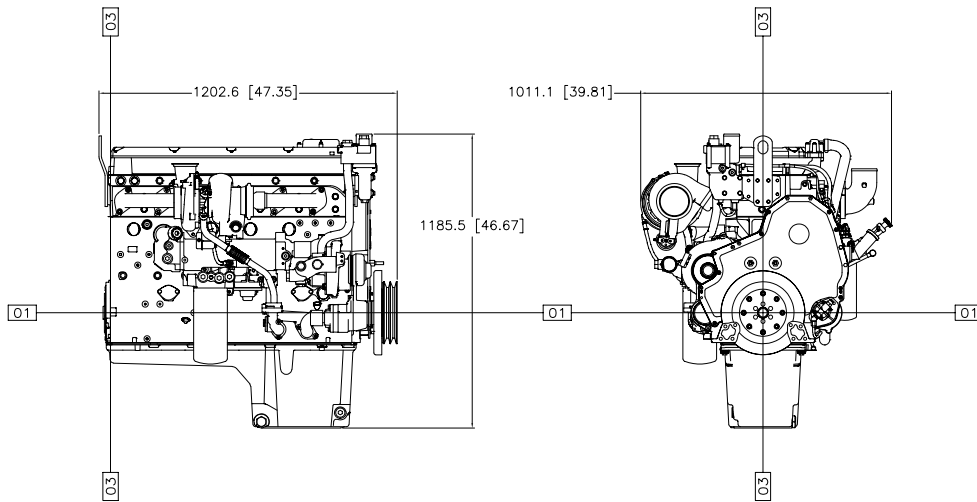


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RATINGS AND CONDITIONS

IND - D For service where maximum power is required for periodic overloads.

Engine Performance Diesel Engines — 7 liter and higher All rating conditions are based on SAE J1995, inlet air standard conditions of 99 kPa (29.31 in. Hg) dry barometer and 25°C (77°F) temperature. Performance measured using a standard fuel with fuel gravity of 35° API having a lower heating value of 42,780 kJ/kg (18,390 btu/lb) when used at 29° C (84.2° F) with a density of 838.9 g/L.



Engine Dimensions	
(1) Length	1202.6 mm (47.35 in)
(2) Width	1012.8 mm (39.87 in)
(3) Height	1185.5 mm (46.67 in)

Note: Do not use for installation design. See general dimension drawings for detail (Drawing # 2741593).

Performance Number: DM7688-02
 Feature Code: C13DI03 Arr. Number: 2364575
 Materials and specifications are subject to change without notice.
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