



**C11 ACERT™**  
**Industrial Engine**  
Tier 3/Stage IIIA  
313 bkW/420 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.....	140.0 mm (5.51 in)
Displacement.....	11.1 L (677.36 in <sup>3</sup> )
Aspiration.....	Turbocharged Aftercooled
Compression Ratio.....	17.2:1
Rotation (from flywheel end).....	Counterclockwise
Weight, Net Dry (approximate kg, lb)....	930 kg (2050 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
- Factory-designed systems built at Caterpillar ISO 9001:2000 certified facilities
- Ownership of these manufacturing processes enables Caterpillar to produce high quality, dependable product.

### Testing

Prototype testing on every model:

- proves computer design
- verifies system torsional stability
- functionality tests 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](http://www.cat-industrial.com).



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### STANDARD ENGINE EQUIPMENT

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#### **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



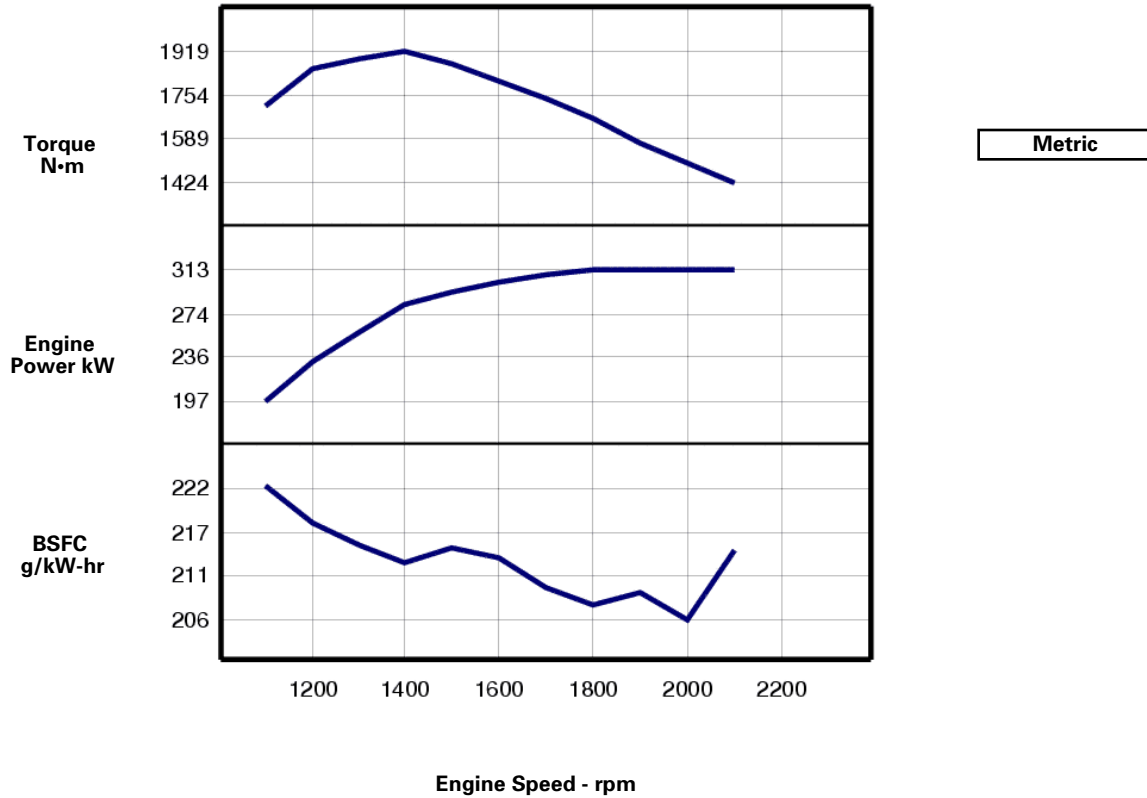
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**PERFORMANCE CURVES**

IND - D - DM7693-02



Engine Speed rpm	Engine Power kW	Torque N·m	BSFC g/kW-hr	Fuel Rate L/hr
2100	313	1424	214.5	80.1
2000	313	1495	206	76.9
1900	313	1574	209.4	78.2
1800	313	1661	208	77.7
1700	310	1740	210	77.5
1600	303	1809	213.6	77.2
1500	294	1871	214.8	75.3
1400	281	1919	213	71.4
1300	258	1895	214.9	66.1
1200	232	1849	217.8	60.3
1100	197	1709	222	52.1



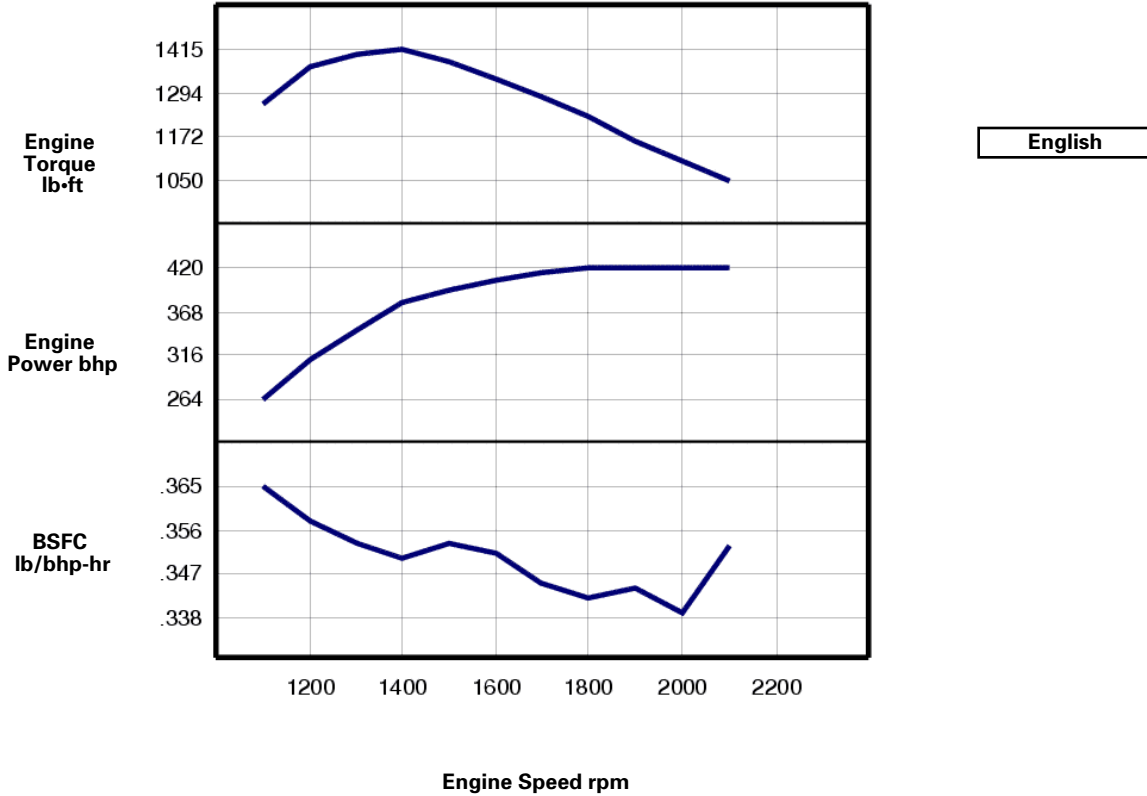
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**PERFORMANCE CURVES**

IND - D - DM7693-02



Engine Speed rpm	Engine Power bhp	Engine Torque lb-ft	BSFC lb/bhp-hr	Fuel Rate gal/hr
2100	420	1050	.353	21.2
2000	420	1103	.339	20.3
1900	420	1161	.344	20.7
1800	420	1225	.342	20.5
1700	415	1283	.345	20.5
1600	406	1334	.351	20.4
1500	394	1380	.353	19.9
1400	377	1415	.350	18.9
1300	346	1398	.353	17.5
1200	312	1364	.358	15.9
1100	264	1260	.365	13.8

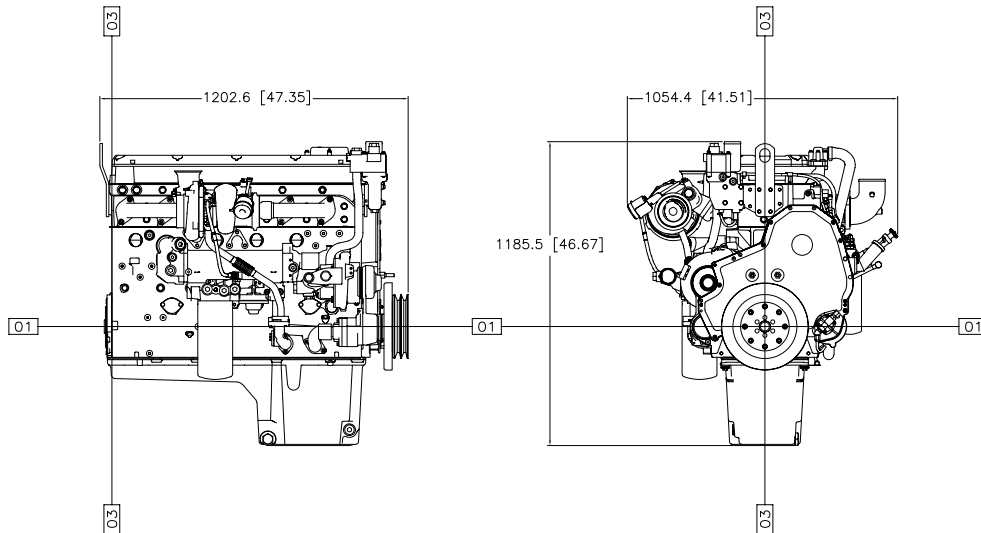


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**RATINGS AND CONDITIONS**

**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.



<b>Engine Dimensions</b>	
(1) Length	1202.6 mm (47.35 in)
(2) Width	1055.9 mm (41.57 in)
(3) Height	1176.0 mm (46.3 in)

Note: Do not use for installation design. See general dimension drawings for detail (Drawing # 2659109 ).

Performance Number: DM7693-02

Feature Code: C11DI03 Arr. Number: 2364577

Materials and specifications are subject to change without notice.

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