



C7 ACERT™
Industrial Power Unit
Tier 3/Stage IIIA
187 bkW/250 bhp @ 2200 rpm

**CATERPILLAR ENGINE
SPECIFICATIONS**

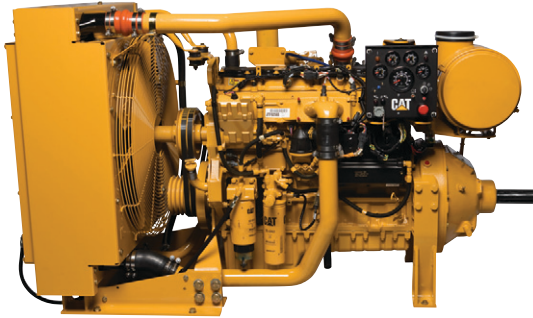


Image shown may not reflect actual engine

I-6, 4-Stroke-Cycle Diesel

Bore.....	110.0 mm (4.33 in)
Stroke.....	127.0 mm (5.0 in)
Displacement.....	7.2 L (442 in ³)
Aspiration.....	Turbocharged ATAAC
Compression Ratio.....	17:1
Rotation (from flywheel end).....	Counterclockwise
Lube Oil System (refill).....	28 L (7.4 U.S. gal)
Weight, Net Dry (approximate kg, lb).....	588 kg (1296 lbs)

FEATURES

Emissions

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

Worldwide Supplier Capability

- Caterpillar
- Casts engine blocks and heads
 - 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.

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 Electronic Control Unit (ECU)

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

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

Lube System

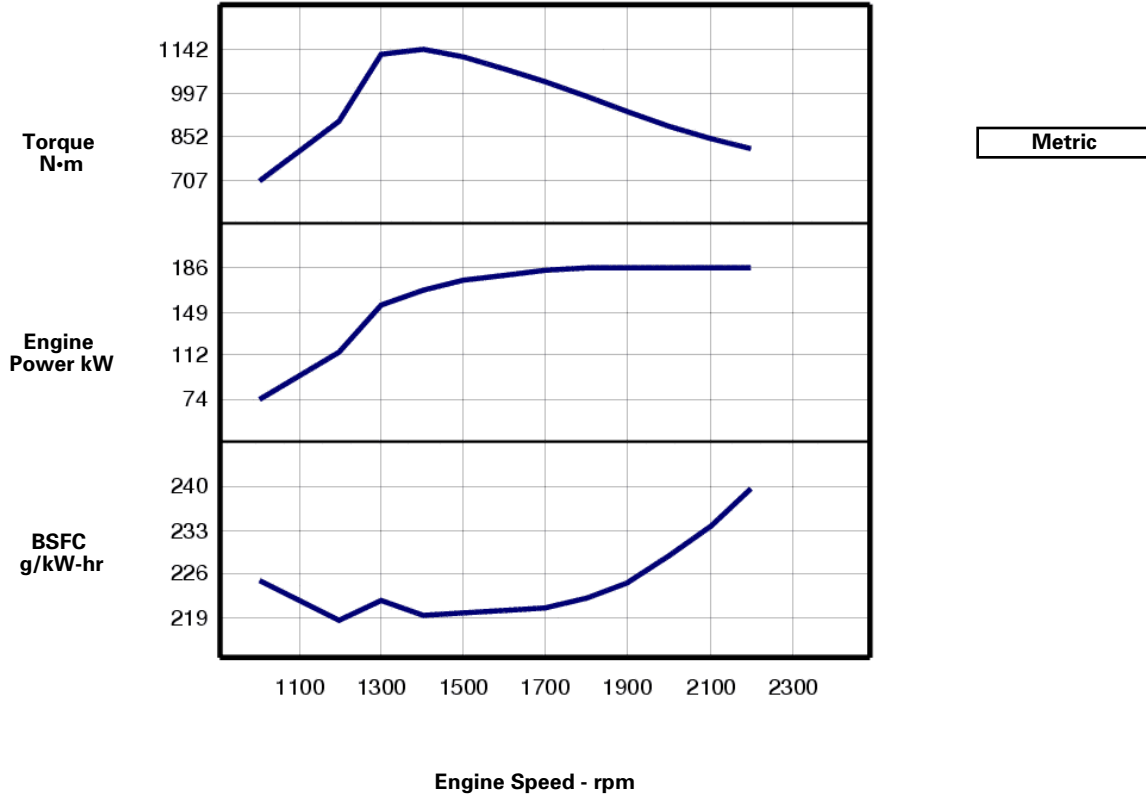
Crankcase breather
Oil cooler
Oil filler
Oil filter
Oil pan front sump
Oil dipstick
Oil pump (gear driven)

General

Paint, Caterpillar Yellow
Vibration damper
Lifting eyes

PERFORMANCE CURVES

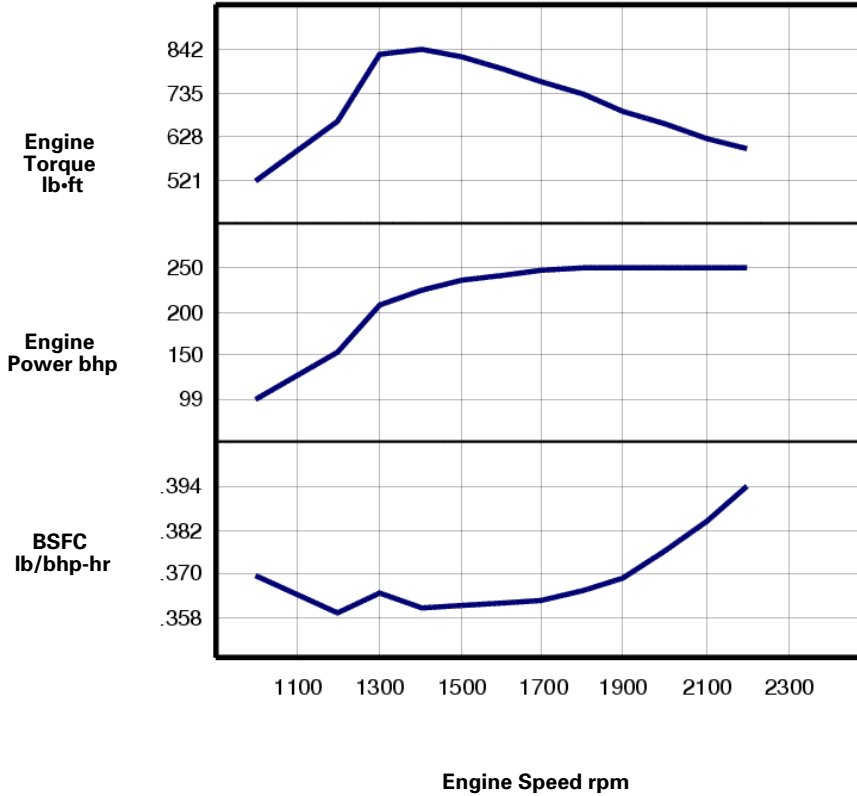
IND - C (Intermittent) - DM9221-01



Engine Speed rpm	Engine Power kW	Torque N·m	BSFC g/kW-hr	Fuel Rate L/hr
2200	187	810	239.7	53.3
2100	187	848	233.7	52.0
2000	187	890	228.7	50.8
1900	187	937	224.4	49.9
1800	187	989	222.2	49.4
1700	184	1035	220.6	48.4
1600	180	1077	220.1	47.3
1500	175	1115	219.7	45.9
1400	167	1142	219.4	43.8
1300	154	1128	221.8	40.6
1200	114	906	218.5	29.7
1000	74	707	224.9	19.8

PERFORMANCE CURVES

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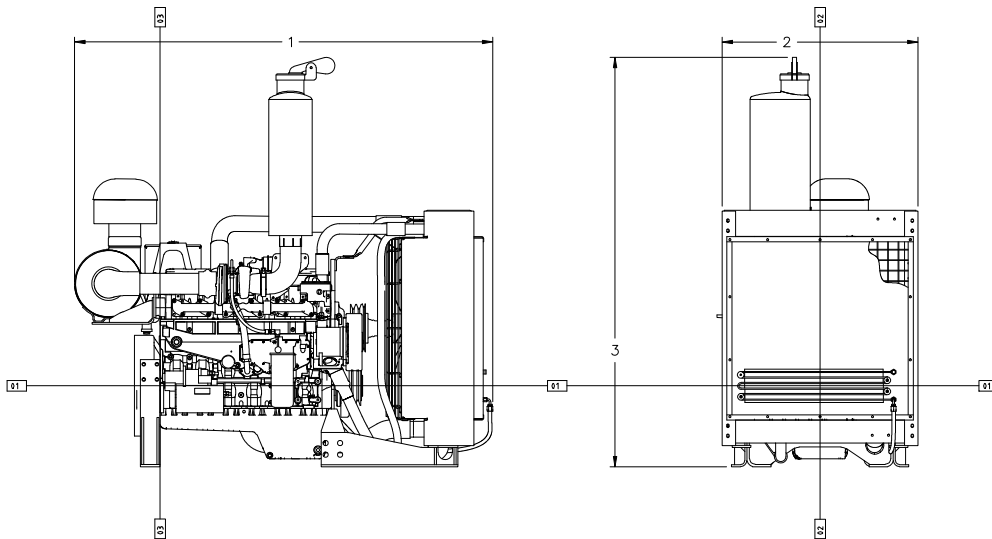
Engine Speed rpm	Engine Power bhp	Engine Torque lb-ft	BSFC lb/bhp-hr	Fuel Rate gal/hr
2200	250	597	.394	14.1
2100	250	625	.384	13.7
2000	250	656	.376	13.4
1900	250	691	.369	13.2
1800	250	729	.365	13.1
1700	247	763	.363	12.8
1600	242	794	.362	12.5
1500	235	822	.361	12.1
1400	224	842	.361	11.6
1300	206	832	.365	10.7
1200	153	668	.359	7.8
1000	99	521	.370	5.2

RATINGS AND CONDITIONS

IND - C (Intermittent) Intermittent service where maximum power and/or speed are cyclic (time at full load not to exceed 50%).

Not to be used for irrigation applications. Refer to IND-A and IND-B ratings for irrigation and pump applications.

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	2029.5 mm (79.9 in)
(2) Width	974.8 mm (38.38 in)
(3) Height	1986.3 mm (78.2 in)

Note: Do not use for installation design. See general dimension drawings for detail (Drawing # 3380381).

Performance Number: DM9221-01

Feature Code: C07DI05 Arr. Number: 2666732

Materials and specifications are subject to change without notice.

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