



C7 ACERT™ Industrial Engine

Tier 3/Stage IIIA
224 bkW/300 bhp @ 2200 rpm



Image shown may not reflect
actual engine

CAT® ENGINE SPECIFICATIONS

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.



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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 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

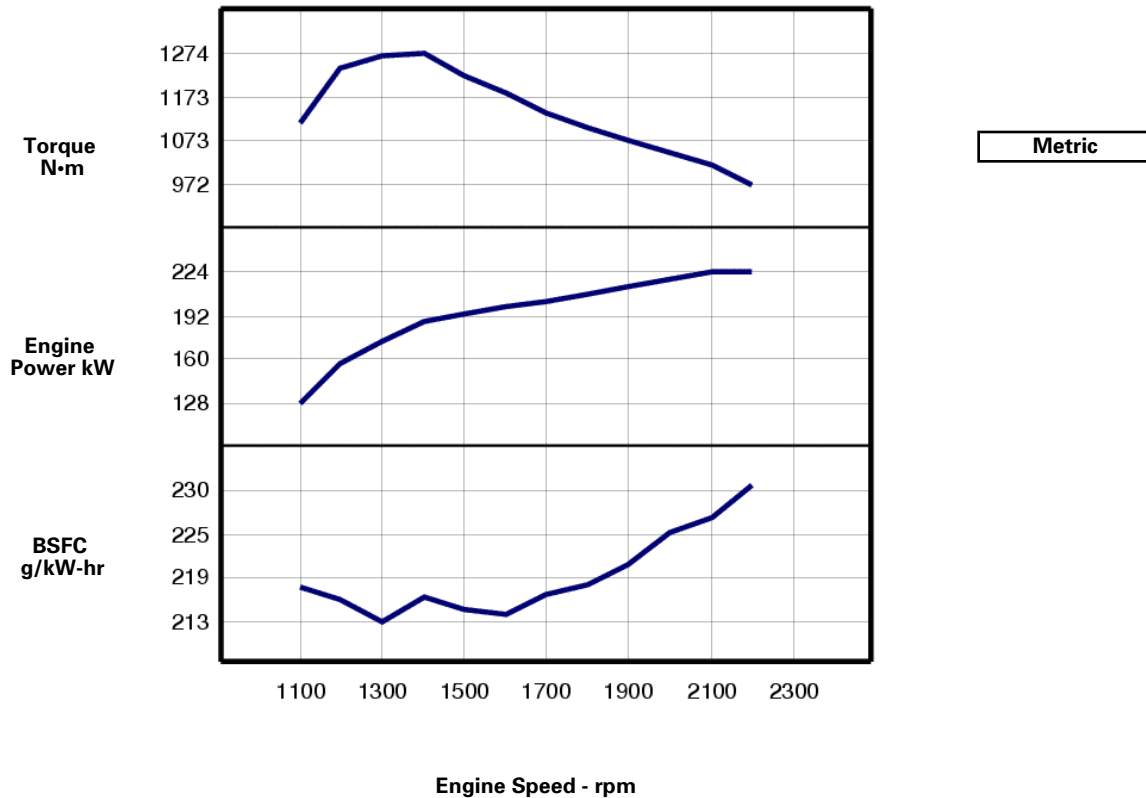
Paint, Caterpillar Yellow
Vibration damper
Lifting eyes



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PERFORMANCE CURVES

IND - D - DM9223-02



Engine Speed rpm	Engine Power kW	Torque N·m	BSFC g/kW-hr	Fuel Rate L/hr
2200	224	972	230.1	61.5
2100	224	1019	226.3	60.4
2000	219	1043	224.3	58.4
1900	213	1072	220.3	56.0
1800	208	1104	218	54.1
1700	203	1139	216.7	52.4
1600	198	1184	214.4	50.7
1500	192	1225	214.9	49.3
1400	187	1274	216.4	48.2
1300	173	1271	213.4	44.0
1200	156	1240	216.1	40.1
1100	128	1113	217.6	33.3



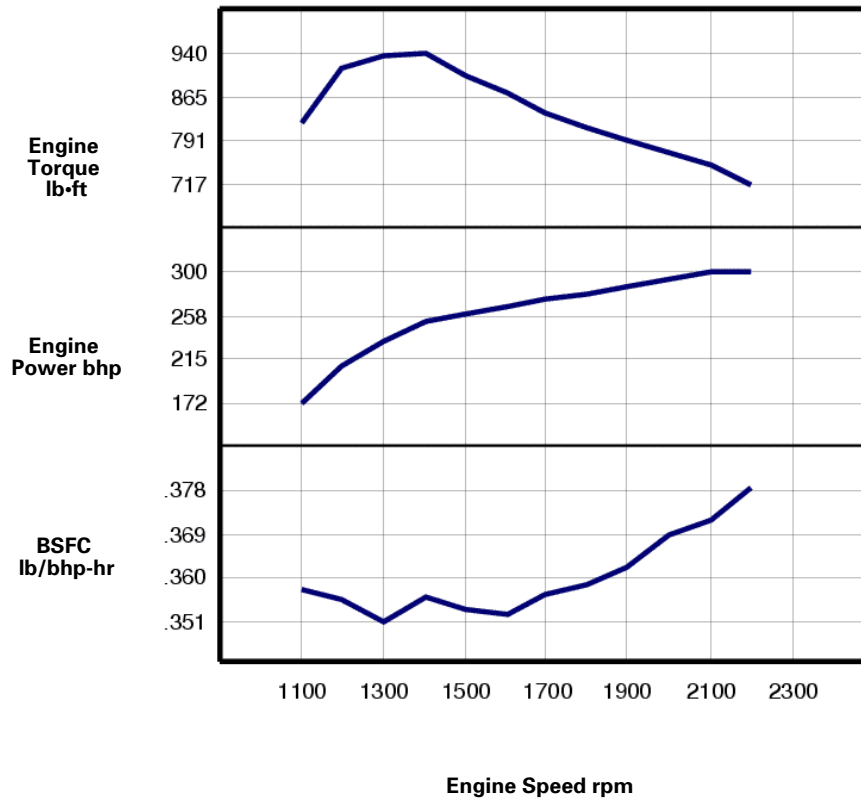
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PERFORMANCE CURVES

IND - D - DM9223-02



English

Engine Speed rpm	Engine Power bhp	Engine Torque lb-ft	BSFC lb/bhp-hr	Fuel Rate gal/hr
2200	300	717	.378	16.2
2100	300	752	.372	16.0
2000	293	769	.369	15.4
1900	286	791	.362	14.8
1800	279	814	.358	14.3
1700	272	840	.356	13.8
1600	266	873	.352	13.4
1500	258	904	.353	13.0
1400	251	940	.356	12.7
1300	232	937	.351	11.6
1200	209	915	.355	10.6
1100	172	821	.358	8.8



C7 ACERT™ Industrial Engine

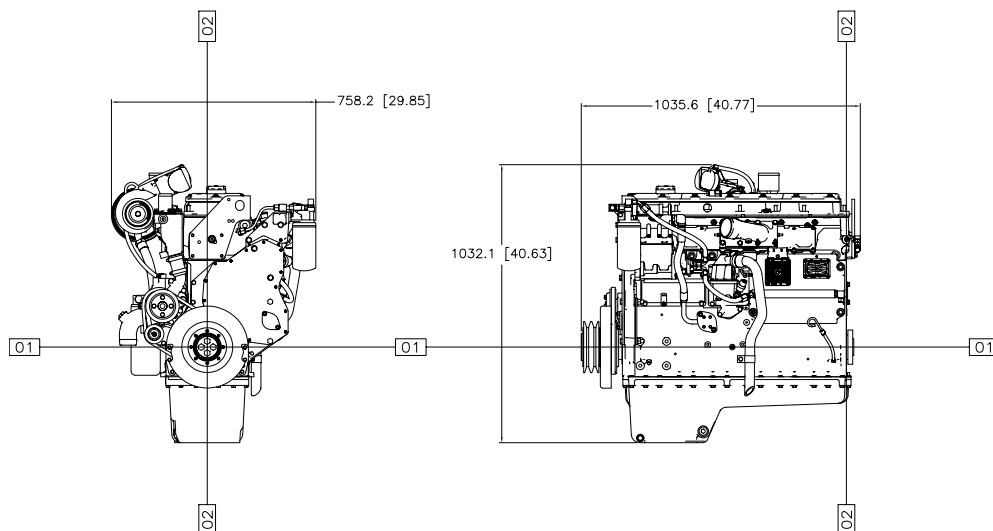
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RATINGS AND CONDITIONS

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	1052.7 mm (41.44 in)
(2) Width	758.2 mm (29.85 in)
(3) Height	1032.1 mm (40.63 in)

Note: Do not use for installation design.
See general dimension drawings for detail (Drawing # 2835788).

Performance Number: DM9223-02

Feature Code: C07DI02 Arr. Number: 2666731

Materials and specifications are subject to change without notice.

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