



C27 ACERT™
Industrial Engine
Tier 2
858 bkW/1150 bhp @ 2100 rpm

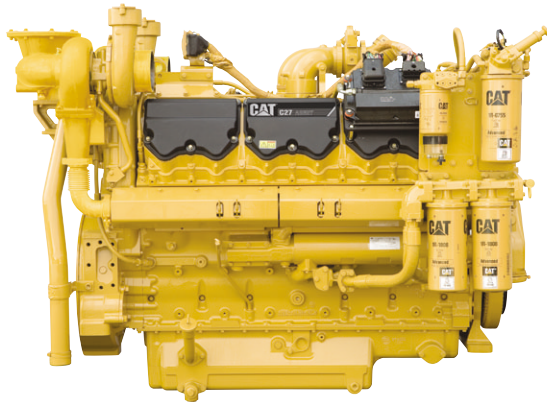


Image shown may not reflect actual engine

CAT® ENGINE SPECIFICATIONS

Vee 12 Cylinder, 4-Stroke-Cycle Diesel

Bore.....	137.2 mm (5.4 in)
Stroke.....	152.4 mm (6.0 in)
Displacement.....	27.03 L (1,649.47 in ³)
Aspiration.....	Turbocharged Aftercooled
Compression Ratio.....	16.5:1
Rotation (from flywheel end).....	Counterclockwise
Weight, Net Dry (approximate kg. lb).....	2946 kg (6495 lb)

FEATURES

Emissions

Meets U.S. EPA Tier 2 emissions requirements.

Worldwide Supplier Capability

Caterpillar
- Casts engine blocks, heads, cylinder liners, and flywheel housings
- 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 1,800 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

Turbocharged Air to Air Aftercooled

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)

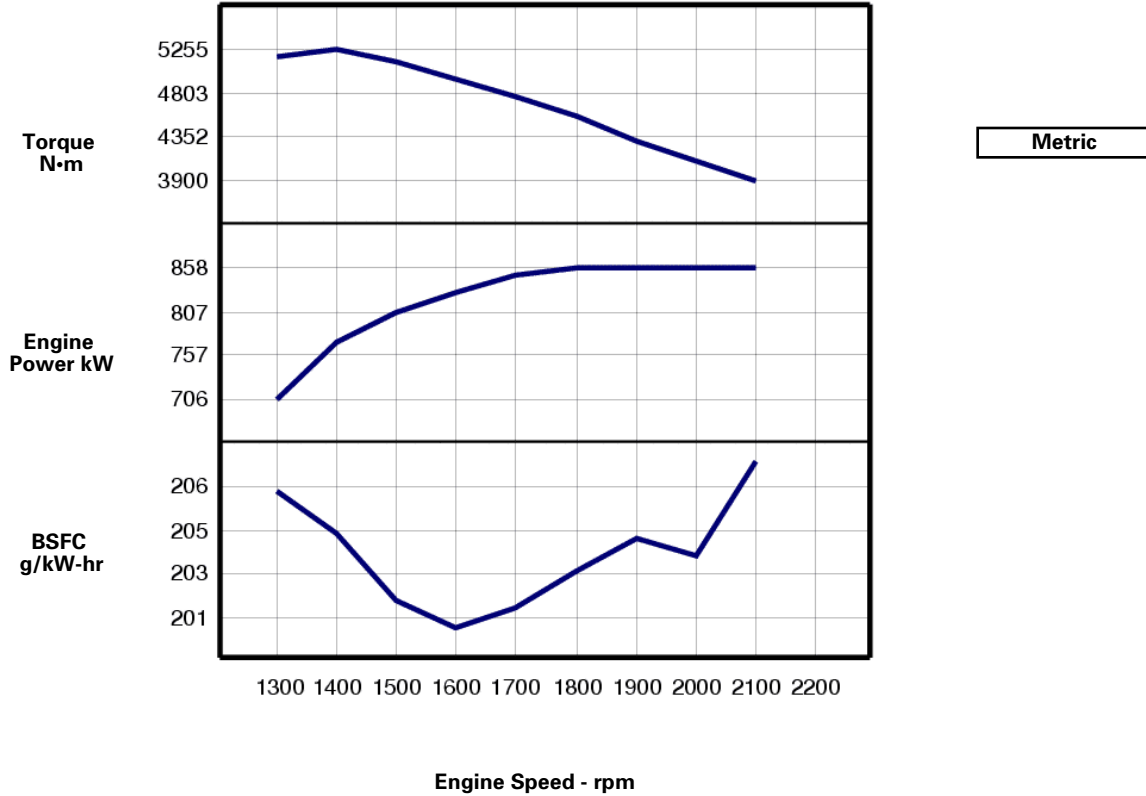
General

Paint, Caterpillar Yellow
Vibration damper
Lifting eyes



PERFORMANCE CURVES

IND - E - DM9036-00

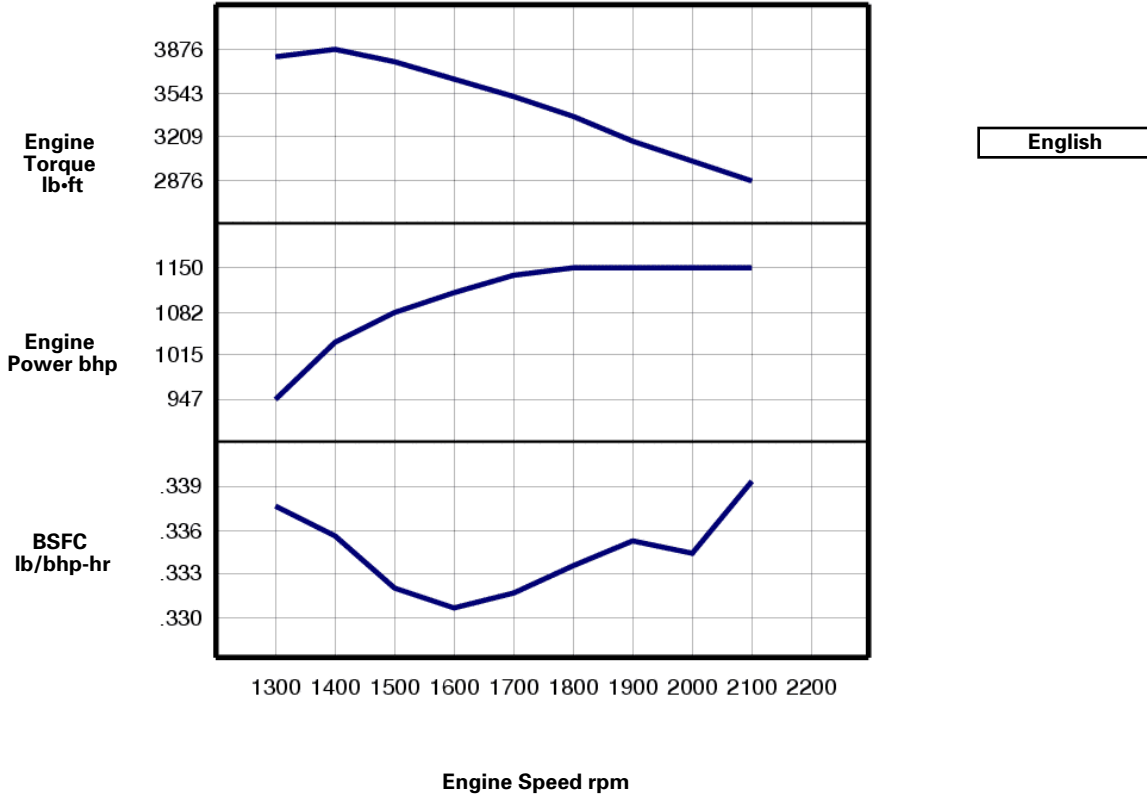


Engine Speed rpm	Engine Power kW	Torque N·m	BSFC g/kW-hr	Fuel Rate L/hr
2100	858	3900	206.4	211.0
2000	858	4095	203.4	207.9
1900	858	4310	203.9	208.4
1800	858	4549	202.9	207.4
1700	848	4766	201.7	204.0
1600	830	4954	201.1	198.9
1500	805	5124	201.9	193.7
1400	770	5255	204.1	187.5
1300	706	5188	205.4	172.9



PERFORMANCE CURVES

IND - E - DM9036-00



Engine Speed rpm	Engine Power bhp	Engine Torque lb-ft	BSFC lb/bhp-hr	Fuel Rate gal/hr
2100	1150	2876	.339	55.7
2000	1150	3020	.334	54.9
1900	1150	3179	.335	55.1
1800	1150	3355	.334	54.8
1700	1138	3515	.332	53.9
1600	1113	3654	.331	52.5
1500	1079	3779	.332	51.2
1400	1033	3876	.336	49.5
1300	947	3826	.338	45.7



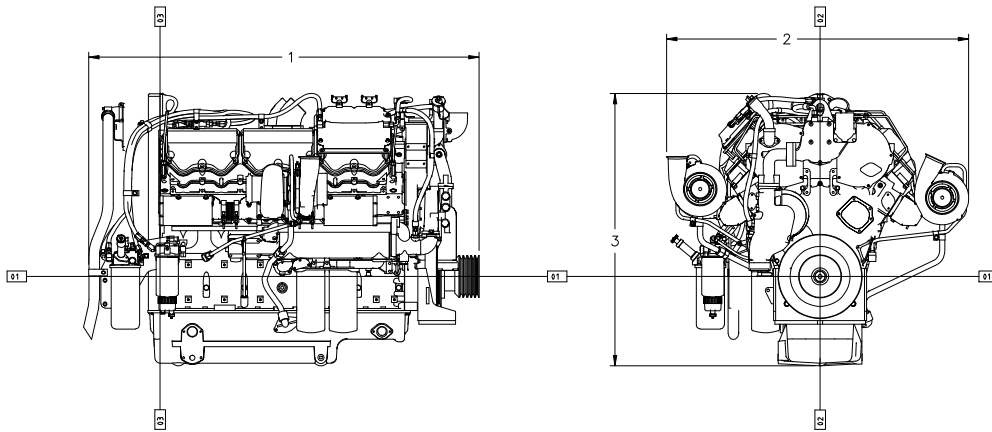
**C27 ACERT™
Industrial Engine**
Tier 2

RATINGS AND CONDITIONS

858 bkW/1150 bhp @ 2100 rpm

IND - E For service where maximum power is required for a short time for initial starting or sudden overload. For emergency service where standard power is unavailable (time at full load not to exceed 5% of the duty cycle).

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	See page Specifications for Dimensions
(2) Width	
(3) Height	

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

Performance Number: DM9036-00
Feature Code: C27DI14 Arr. Number: 3505501
Materials and specifications are subject to change without notice.
16301305

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