



C27 ACERT™
Industrial Engine
Tier 2
709 bkW/950 bhp @ 1800 rpm

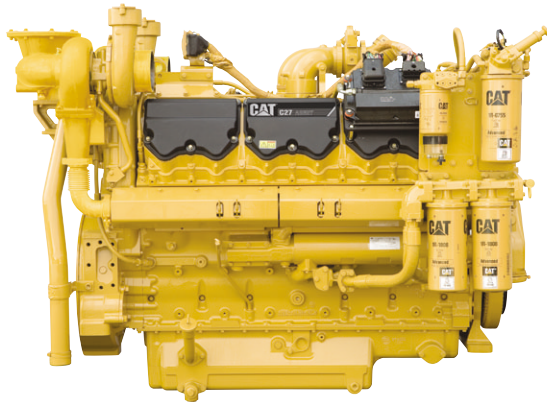


Image shown may not reflect actual engine

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)

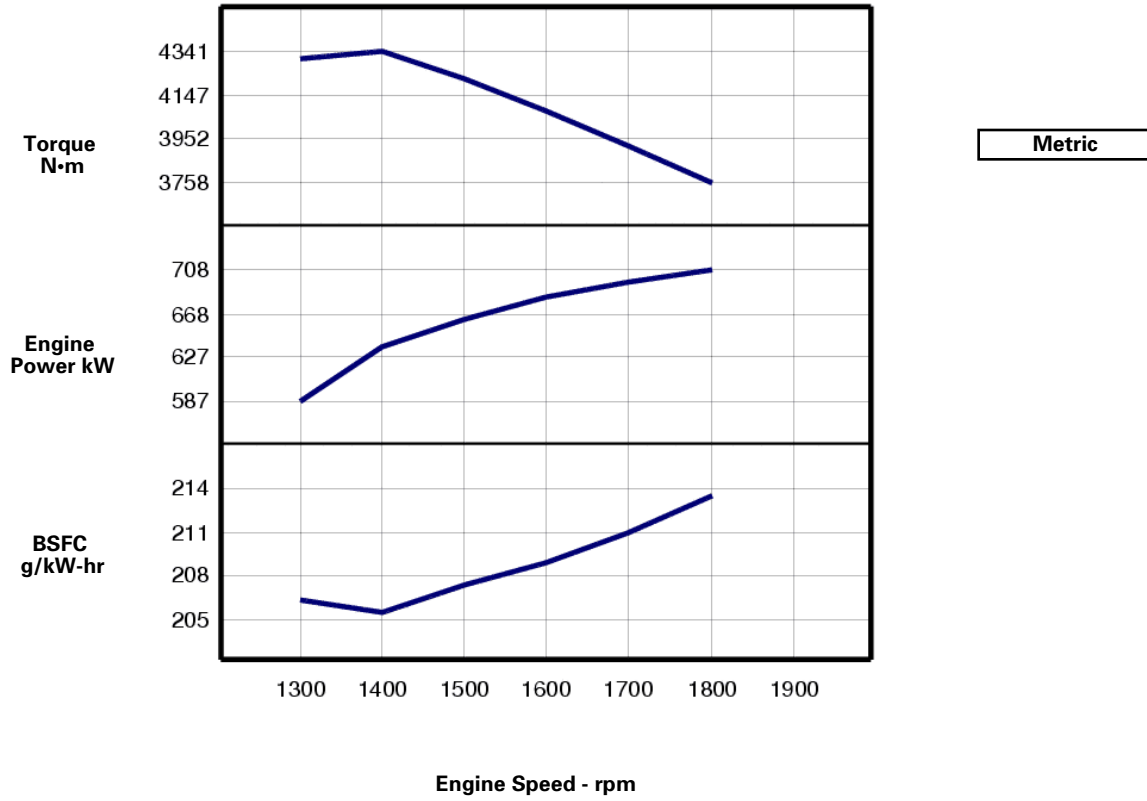
General

Paint, Caterpillar Yellow
Vibration damper
Lifting eyes



PERFORMANCE CURVES

IND - C (Intermittent) - EM0025-01

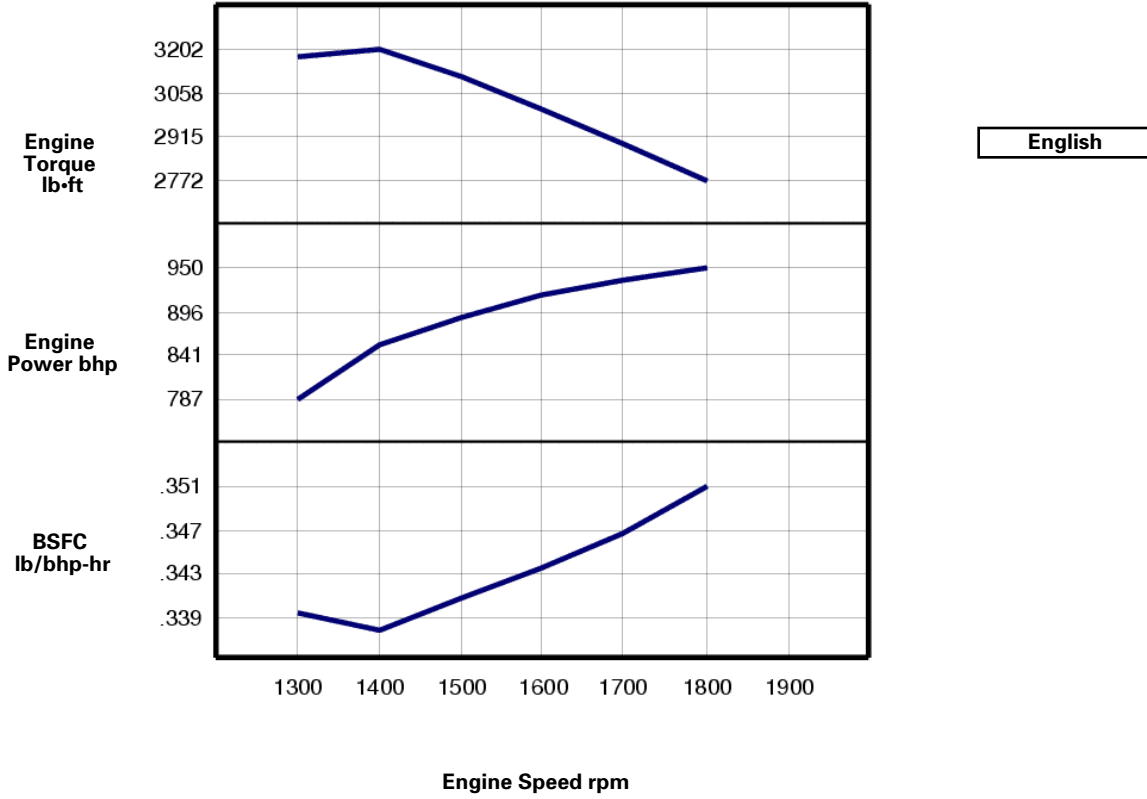


Engine Speed rpm	Engine Power kW	Torque N·m	BSFC g/kW-hr	Fuel Rate L/hr
1800	708	3758	211.1	178.2
1700	697	3917	206.1	171.3
1600	682	4072	206.5	168.0
1500	662	4215	202.7	160.0
1400	636	4341	202	153.2
1300	587	4311	205.1	143.5
1200	530	4219	212.6	134.4



PERFORMANCE CURVES

IND - C (Intermittent) - EM0025-01



Engine Speed rpm	Engine Power bhp	Engine Torque lb-ft	BSFC lb/bhp-hr	Fuel Rate gal/hr
1800	950	2772	.347	47.1
1700	935	2889	.339	45.3
1600	915	3003	.339	44.4
1500	888	3109	.333	42.3
1400	853	3202	.332	40.5
1300	787	3180	.337	37.9
1200	711	3112	.350	35.5

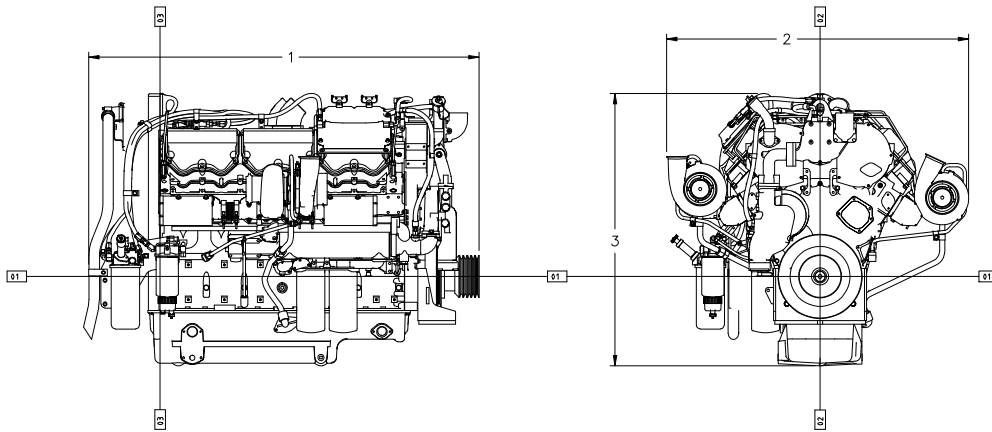


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RATINGS AND CONDITIONS

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

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: EM0025-01
Feature Code: C27D116 Arr. Number: 3505507
Materials and specifications are subject to change without notice.
16304403

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