C27 ACERT™
Industrial Engine
Tier 2
783 bkW/1050 bhp @ 2100 rpm

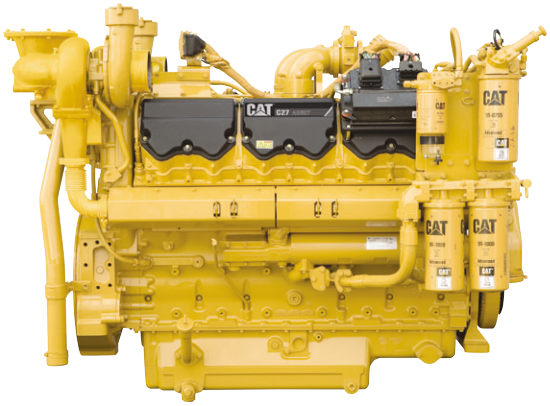


Image shown may not reflect actual engine

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

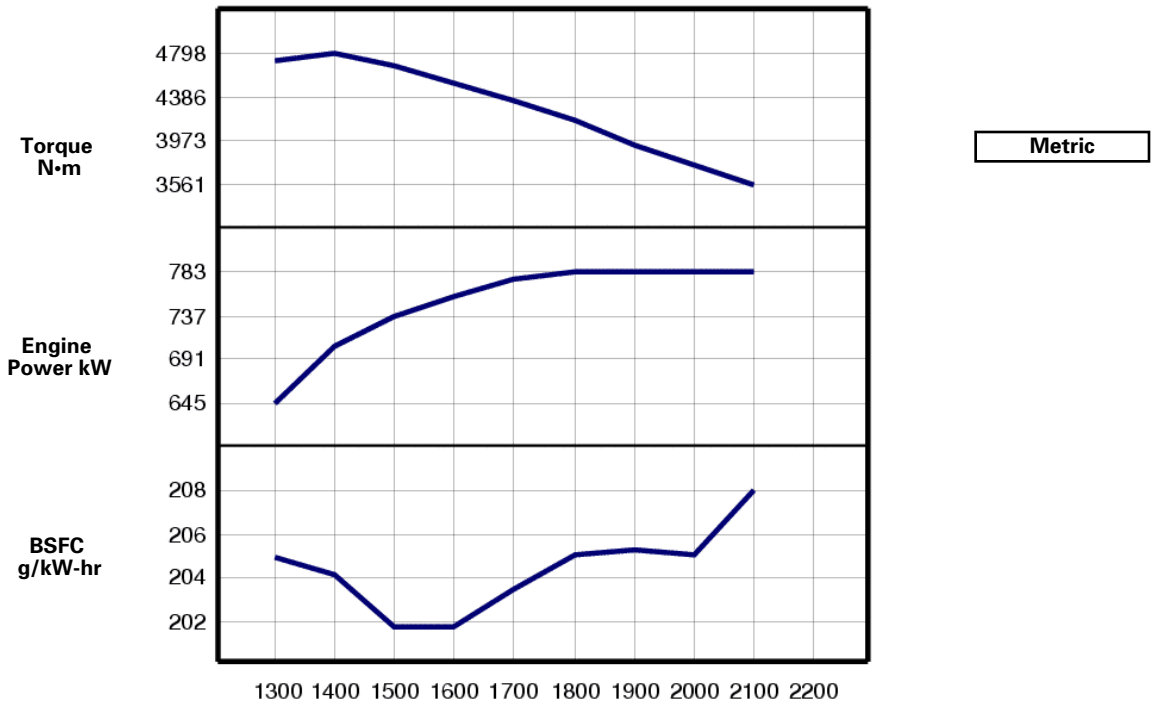
Crankcase breather
Oil cooler
Oil filler
Oil filter
Oil pan front sump
Oil dipstick
Oil pump (gear driven)

General

Paint, Caterpillar Yellow
Vibration damper
Lifting eyes

PERFORMANCE CURVES

IND - D - DM9035-00

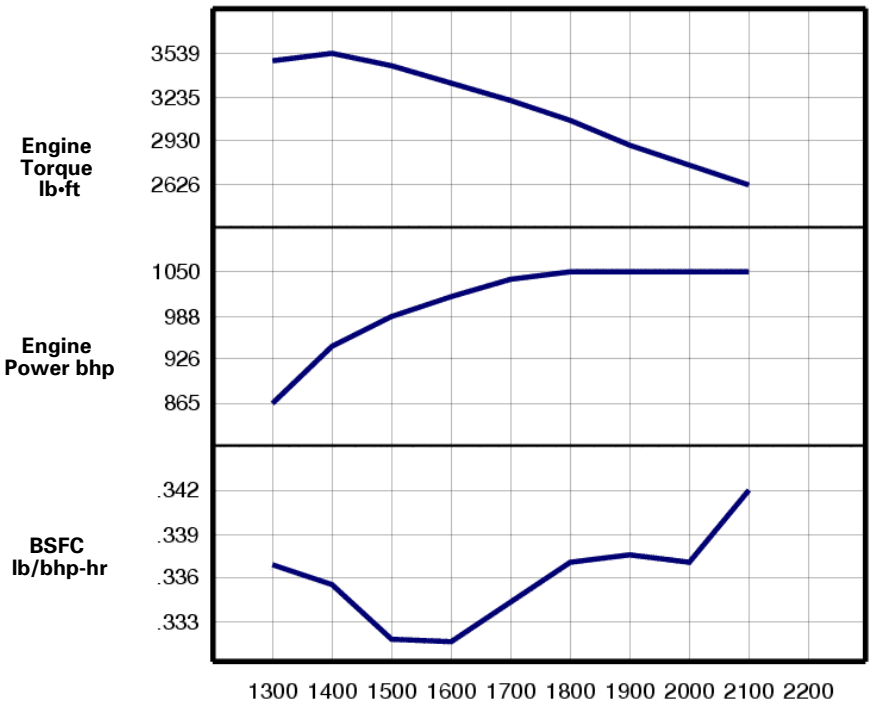


Metric

Engine Speed rpm	Engine Power kW	Torque N•m	BSFC g/kW-hr	Fuel Rate L/hr
2100	783	3561	208	194.2
2000	783	3739	205	191.3
1900	783	3935	205.3	191.6
1800	783	4154	205	191.3
1700	775	4351	203.4	187.8
1600	758	4523	201.7	182.2
1500	735	4678	201.8	176.8
1400	703	4798	204.1	171.2
1300	645	4737	204.9	157.5

PERFORMANCE CURVES

IND - D - DM9035-00



English

Engine Speed rpm	Engine Power bhp	Engine Torque lb•ft	BSFC lb/bhp-hr	Fuel Rate gal/hr
2100	1050	2626	.342	51.3
2000	1050	2758	.337	50.5
1900	1050	2902	.338	50.6
1800	1050	3064	.337	50.5
1700	1039	3209	.334	49.6
1600	1016	3336	.332	48.1
1500	986	3450	.332	46.7
1400	943	3539	.336	45.2
1300	865	3494	.337	41.6

C27 ACERT™ Industrial Engine

Tier 2

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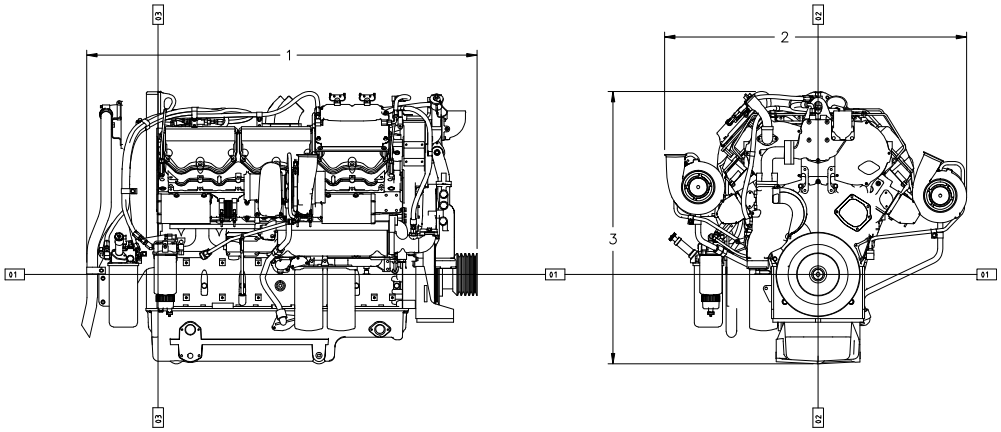
RATINGS AND CONDITIONS

IND - D For service where maximum power is required for periodic overloads (time at full load not to exceed 10% 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 25ºC (77ºF)
temperature. Performance measured using a standard fuel with fuel
gravity of 35º API having a lower heating value of 42,780 kJ/kg
(18,390 btu/lb) when used at 29º C (84.2º F) with a density of 838.9 g/L.



Engine Dimensions	
(1) Length	See page 1-Specifications for Dimensions
(2) Width	
(3) Height	

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

Performance Number: DM9035-00

Feature Code: C27DI12 Arr. Number: 3505501

Materials and specifications are subject to change without notice.

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The International System of Units (SI) is used in this publication.