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 in³)
- 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

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

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

PERFORMANCE CURVES

IND - C (Intermittent) - EM0025-01

<table>
<thead>
<tr>
<th>Engine Speed (rpm)</th>
<th>Engine Power (kW)</th>
<th>Torque (N·m)</th>
<th>BSFC (g/kW-hr)</th>
<th>Fuel Rate (L/hr)</th>
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IND - C (Intermittent) - EM0025-01

<table>
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<th>Engine Power bhp</th>
<th>Engine Torque lb-ft</th>
<th>BSFC lb/bhp-hr</th>
<th>Fuel Rate gal/hr</th>
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</table>
C27 ACERT™ Industrial Engine
Tier 2
709 bkW/950 bhp @ 1800 rpm

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 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 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: C27DI16 Arr. Number: 3505507
Materials and specifications are subject to change without notice.

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