



Industrial Engine C4.4 ACERT™
74.5-106 kW
99.5-142 bhp **2200 rpm**

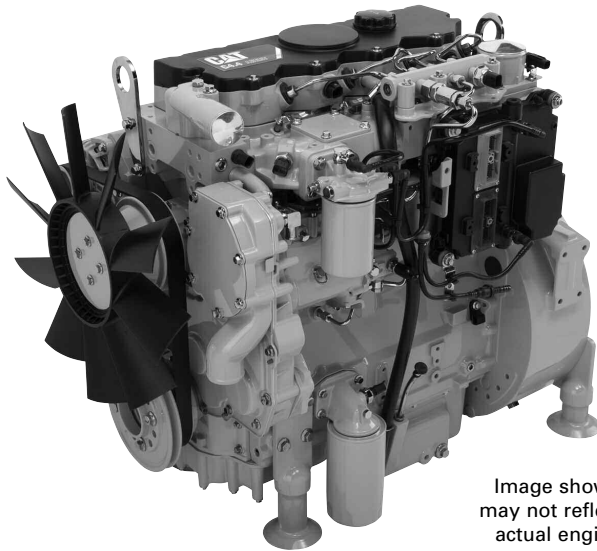


Image shown
may not reflect
actual engine

CATERPILLAR® ENGINE SPECIFICATIONS

I-4, 4-Stroke-Cycle Diesel

Bore 105 mm (4.1 in.)
Stroke 127 mm (5.0 in.)
Displacement 4.4 L (269 in³)
Aspiration Turbocharged Aftercooled
Compression Ratio 16.2:1
Combustion System Direct Injection
Rotation (from flywheel end) . . . Counterclockwise
Capacity for Liquids
Cooling System (engine only) . . 7 L (7.4 U.S. qts.)
Lube Oil System
(refill) typical up to 11 L (11.6 U.S. qts.)
dependent on sump option
and gradeability requirements
Engine Weight, Net Dry (approximate)
with standard equipment 360 kg (793.7 lbs.)

FEATURES

Emissions

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) standards. Stage IIIA refers to European standards.

Reliable and Durable Power

Diesel tough components and conservative speed for smooth operation and long engine life. Factory-designed systems built at Caterpillar ISO 9001:2000 certified facilities.

High Performance

With maximum torque levels maintained, the C4.4 ACERT™ engine provides class-leading power take-off capability.

Clean and Quiet Power

Cleaner, meeting EPA Tier 3 and Stage IIIA European Union emissions standards.

Easy Low-Cost Maintenance

Convenient positioning of service points for easy accessibility. Service intervals set at 500 hours as standard.

Web Site

For additional information on all your power requirements, visit www.cat-industrial.com.

STANDARD ENGINE EQUIPMENT

Air Inlet

Inlet manifold with choice of inlets

Control System

Alternators
Starter motors
Glow plugs for cold start aids

Cooling System

Fan drives and locations

Flywheels and Flywheel Housing

SAE No. 3 flywheel housing
Flywheel and starter rings

Fuel System

Fuel filter positions

Lube System

Lubricating oil filters and breathers
Oil filter positions
Lubricating oil sumps

Power Take Off

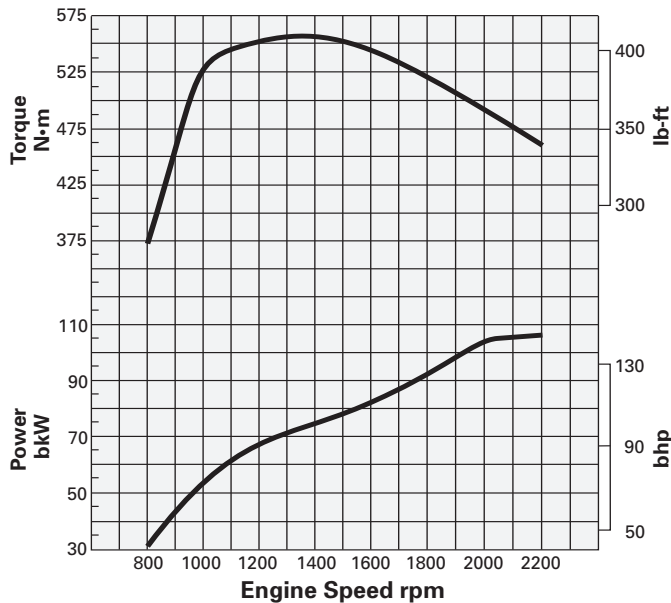
SAE B PTO

General

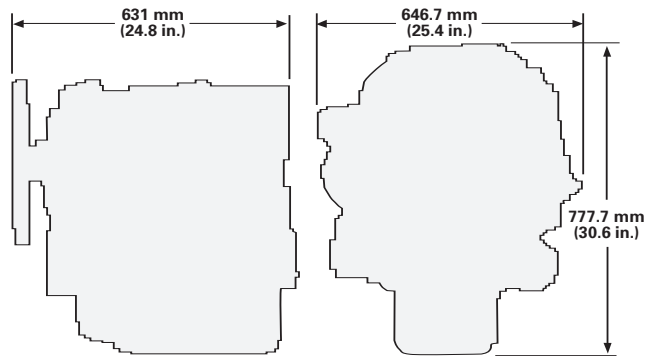
Timing case and gear-driven auxiliaries
Belt-driven auxiliaries
Engine mountings
Gauges
Displays
Power and torque curve tailoring

PERFORMANCE DATA

Turbocharged Aftercooled — 2200 rpm



DIMENSIONS



Length	631 mm (24.8 in.)
Width	626.0 mm (24.65 in.)
Height	958.0 mm (37.72 in.)

Note: Dimensions depend on final specifications.

Unbalanced

	Speed rpm	Power kW	Torque N·m	Power bhp	Torque lb-ft
Highest Rating	2200	106.2	461	142.4	340.0
Peak Torque	1400	81.5	556	109.3	410.1

Gross Intermittent Power = SAE J1995

Other ratings are available.

Lower power ratings should not be read from these curves.

RATING DEFINITIONS AND CONDITIONS

IND-C (Intermittent) is the horsepower and speed capability of the engine where maximum power and/or speed are cyclic (time at full load not to exceed 50%).

Additional ratings are available for specific customer requirements. Consult your Caterpillar dealer.

Rating Conditions for Diesel Engines — up to 6.6 liter are based on ISO/TR14396, inlet air standard conditions with a total barometric pressure of 100 kPa (29.5 in. Hg), with a vapor pressure of 1 kPa (.295 in. Hg), and 25°C (77°F). Performance is measured using fuel to specification EPA 2D 89.330-96 with a density of 0.845-0.850 kg/L @ 15°C (59°F) and fuel inlet temperature 40°C (104°F).

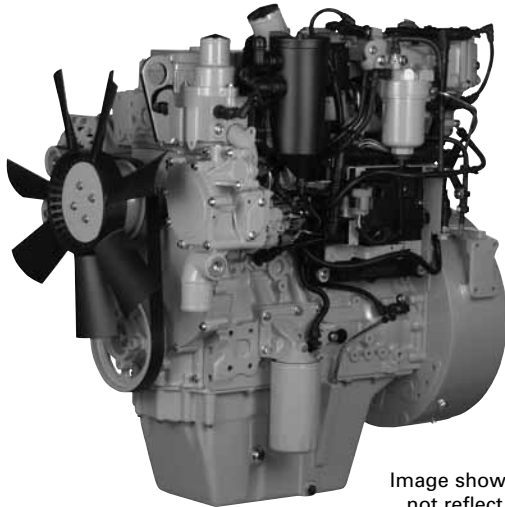


Image shown may not reflect actual engine configuration

CAT® ENGINE SPECIFICATIONS

I-4, 4-Stroke-Cycle Diesel

Bore	105 mm (4.13 in.)
Stroke	127 mm (5.00 in.)
Displacement	4.4 L (268.5 in ³)
Aspiration	Turbocharged Aftercooled
Compression Ratio.....	16.5:1
Combustion System.....	Direct Injection
Rotation (from flywheel end) ...	Counterclockwise
Capacity for Liquids	
Cooling System	10.8 L (11.4 U.S. qts.)
Lube Oil System (refill) sump	
dependent	5.75-9.25 L (6.08-9.77 U.S. qts.)
Engine Weight, Net Dry (approximate)	
excludes electrics and backend	
iron.....	400-450 kg (881.8-992.1 lbs.)

FEATURES

Emissions

Designed to meet 2012 EPA (U.S.) Tier 4 Interim, EU Stage IIIB and Japanese MLIT emissions requirements.

Reliable, Quiet, and Durable Power

World-class manufacturing capability and processes coupled with proven core engine designs assure reliability, quiet operation, and many hours of productive life.

High Performance

Two-stage turbocharger with smart wastegate available on some ratings for fast response, high power, and increased torque.

Fuel Efficiency

Fuel consumption optimized to match operating cycles of a wide range of equipment and applications. No additional fluids or additives are required, which lowers operating costs.

Broad Application Range

Industry leading range of factory configurable ratings and options for agricultural, materials-handling, construction, mining, aircraft ground support, and other industrial applications.

Package Size

Ideal for equipment with narrow engine compartments. Multiple installation options minimize total package size.

Low-Cost Maintenance

Hydraulic tappets, multi-vee belts, "no ash service" aftertreatment, and 500-hour oil change intervals enable low-cost maintenance. Many service items have a choice of location on either side of the engine to enable choice of service access.

Testing

Every Cat® engine is quality tested under full load to ensure proper engine performance.

World-class Product Support Offered Through Global Cat Dealer Network

- Scheduled maintenance
- Customer Support Agreements (CSA)
- Cat Extended Service Coverage (ESC)
- Superior dealer service network
- Extended dealer service network through the Cat Industrial Service Distributor (ISD) program

Web Site: For additional information on all your power requirements, visit www.cat-industrial.com.

STANDARD ENGINE EQUIPMENT

Air Inlet

Heavy-duty air cleaners available

Control System

Full electronic control system, all connectors and wiring looms waterproof and designed to withstand harsh off-highway environments, flexible and configurable software features and well supported SAE J1939 CAN bus enables highly integrated machines

Cooling System

Top tank temperature 108° C as standard to minimize cooling pack size, 50:50 water glycol mix, detailed guidance on cooling system design and validation available to ensure machine reliability

Exhaust System

Diesel particulate filter supplied with a range of inlet and outlet options, no ash service requirement, low temperature regeneration

Flywheels and Flywheel Housing

Wide choice of drivetrain interfaces, including but not limited to SAE2 and SAE3 configurations

Fuel System

Electronic high pressure common rail, ACERT™ Technology

Lube System

Choice of sumps for different applications

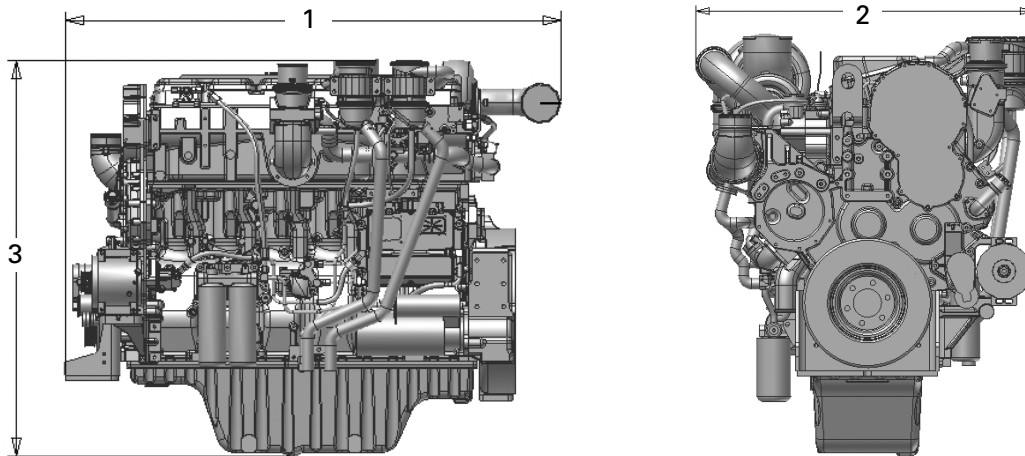
Power Take Off

SAE A or SAE B flanges on left-hand side, additional SAE A flange available on LHS, engine power can also be taken from the front of the engine on some applications, factory fitted compressors are also available

General

Available with or without a balancer

DIMENSIONS



(1) Length — 834 mm (32.8 in.)

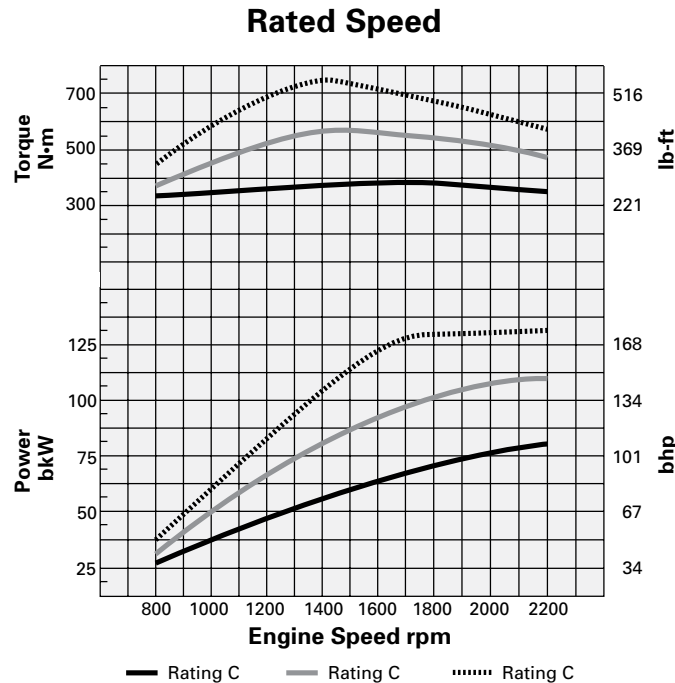
(2) Width — 597 mm (23.5 in.)

(3) Height — 818 mm (32.2 in.)

Note: Final dimensions dependent on selected options

PERFORMANCE DATA — PRELIMINARY

Turbocharged Aftercooled — 2200 rpm



Speed Range

Rating	Speed rpm	Peak Power bkW	Peak Power bhp	Speed rpm	Peak Torque N·m	Peak Torque lb-ft
C*	2200	79.9	107.1	1400	390	287.6
C*	2200	110.1	147.6	1400	560	413.0
C**	2200	129.4	173.5	1400	750	553.2

*Single Turbo

**Series Turbocharged

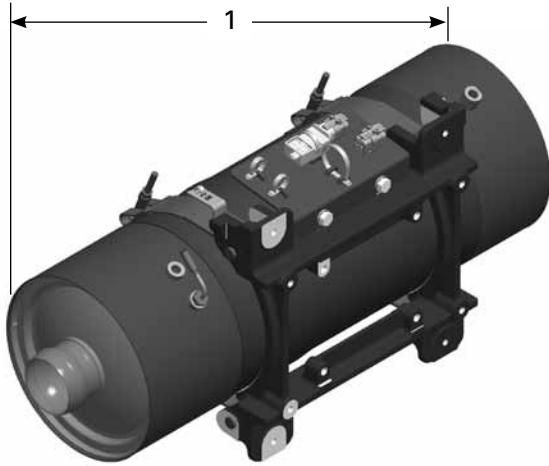
RATING DEFINITIONS AND CONDITIONS

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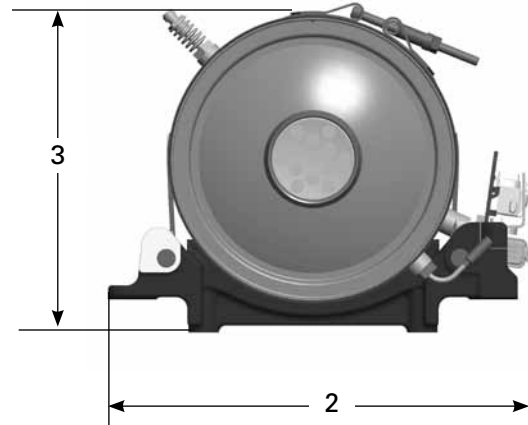
Additional ratings are available for specific customer requirements. Consult your Cat dealer.

Rating Conditions for Diesel Engines — up to 6.6 liter are based on ISO/TR14396, inlet air standard conditions with a total barometric pressure of 100 kPa (29.5 in. Hg), with a vapor pressure of 1 kPa (.295 in. Hg), and 25° C (77° F). Performance is measured using fuel to EPA specifications in 40 CFR Part 1065 and EU specifications in Directive 97/68/EC with a density of 0.845-0.850 kg/L @ 15° C (59° F) and fuel inlet temperature 40° C (104° F).

AFTERTREATMENT CONFIGURATION



Less than or equal to 82 bkW (110 bhp)
8.5" DIAMETER BASE CONFIGURATION
Approximate Size and Weight
 (1) Length — 801 mm (31.5 in.)
 (2) Width — 367 mm (14.5 in.)
 (3) Height — 284 mm (11 in.)
 Weight — 34 kg (75 lbs.)



Greater than 82 bkW (110 bhp)
9.5" DIAMETER BASE CONFIGURATION
Approximate Size and Weight
 (1) Length — 827 mm (32.6 in.)
 (2) Width — 367 mm (14.5 in.)
 (3) Height — 311 mm (12.2 in.)
 Weight — 37 kg (81.6 lbs.)

AFTERTREATMENT FEATURES

Regeneration: Low temperature regeneration completely transparent to the operator
Mounting: Extensive range of inlets and outlets, as well as remote and on-engine installations, provide flexibility for many installations.

Service: Service-free DPF for the emissions life of the engine
 Available in 12- or 24-volt systems

STANDARD EMISSIONS CONTROL EQUIPMENT

DPF: Diesel Particulate Filter

3" flex pipe connection kit with straight, 45°, and 90° options for flexibility

Materials and specifications are subject to change without notice. The International System of Units (SI) is used in this publication. CAT, CATERPILLAR, their respective logos, ACERT, "Caterpillar Yellow" and the "Power Edge" trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.



Industrial Engine

C4.4

55.5-74.5 bkW/
75-99.9 bhp

2200-2400 rpm

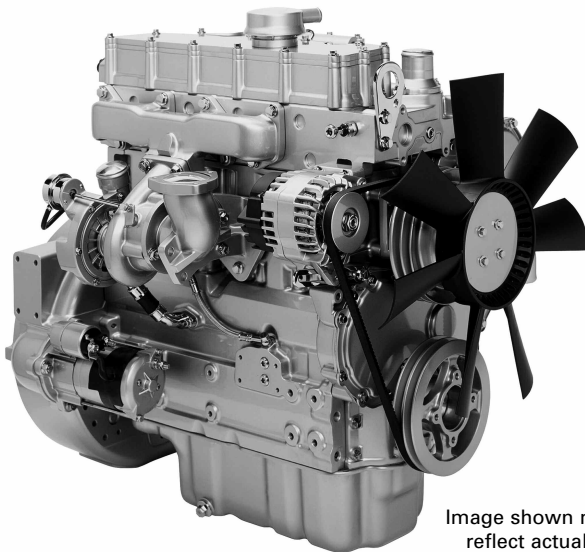


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CATERPILLAR® ENGINE SPECIFICATIONS

I-4, 4-Stroke-Cycle Diesel

Bore..... 105 mm (4.13 in.)
Stroke..... 127 mm (5.0 in.)
Displacement..... 4.4 L (269 in³)
Aspiration..... Turbocharged
Compression Ratio..... 16.2:1
Combustion System..... Direct Injection
Rotation (from flywheel end) ... Counterclockwise
Capacity for Liquids
Cooling System (engine only).. 7 L (7.4 U.S. qts.)
Lube Oil System
(refill) typical Up to 11 L (11.6 U.S. qts.)
dependent on sump option
and gradeability requirements
Engine Weight, Net Dry (approximate)
with standard equipment 303 kg (668 lbs.)

FEATURES

Emissions

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) standards. Stage IIIA refers to European standards.

Reliable and Durable Power

Diesel tough components and conservative speed for smooth operation and long engine life. Factory-designed systems built at Caterpillar ISO 9001:2000 certified facilities.

High Performance

With maximum torque levels maintained, the C4.4 engine provides class-leading power take-off capability.

Clean and Quiet Power

Cleaner, meeting EPA Tier 3 and Stage IIIA European Union emissions standards.

Easy Low-Cost Maintenance

Convenient positioning of service points for easy accessibility. Service intervals set at 500 hours as standard.

Web Site

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STANDARD ENGINE EQUIPMENT

Air Inlet

Inlet manifold with choice of inlets

Control System

Alternators
Starter motors
Control panels
Glow plugs for cold start aids

Cooling System

Fan drives and locations

Flywheels and Flywheel Housing

SAE No. 3 flywheel housing
Flywheel and starter rings

Fuel System

Fuel filter positions

Lube System

Lubricating oil filters and breathers
Oil filter positions
Lubricating oil sumps

Power Take Off

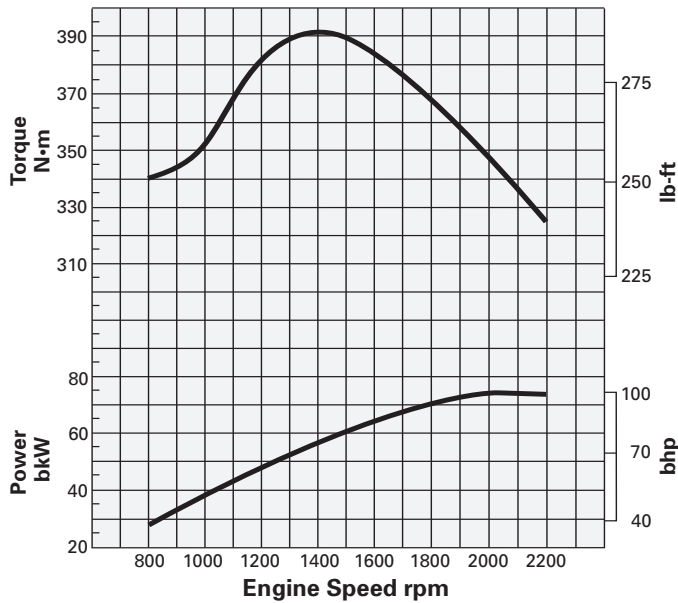
SAE B PTO

General

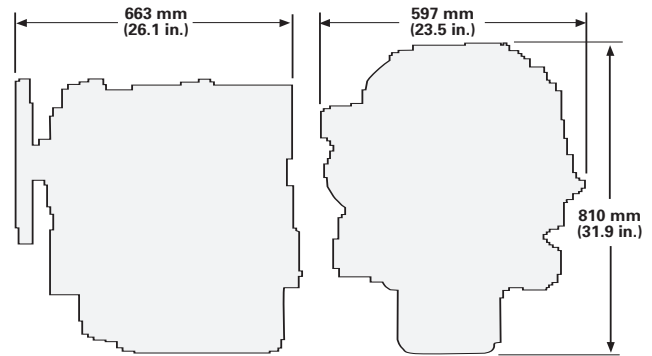
Timing case and gear-driven auxiliaries
Belt-driven auxiliaries
Engine mountings
Gauges
Displays
Power and torque curve tailoring

PERFORMANCE DATA

Turbocharged — 2200-2400 rpm



DIMENSIONS



Length	663 mm (26.1 in.)
Width	597 mm (23.5 in.)
Height	810 mm (31.9 in.)

Note: Dimensions depend on final specifications.

Unbalanced

	Speed rpm	Power kW	Torque N·m	Power bhp	Torque lb-ft
Highest Rating	2200	74.5	323	99.9	238.2
Peak Torque	1400	57.5	392	77.1	289.1

Gross Intermittent Power = SAE J1995

Other ratings are available.

Lower power ratings should not be read from these curves.

RATING DEFINITIONS AND CONDITIONS

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