

U.S. EPA Tier 4 Final and EU Stage V
82-150 bkW/109-200 bhp @ 2200 rpm

Image shown may not reflect
 actual engine configuration.

Specifications

Cat® C4.4 ACERT Industrial Engine	Metric	Imperial (English)
Configuration	I-4, 4-Stroke	
Bore	105 mm	4.13 in
Stroke	127 mm	5 in
Displacement	4.4 L	268.5 in ³
Aspiration	Turbocharged-Aftercooled (TA) Series Turbocharged-Aftercooled (TTA)	
Compression Ratio	16.5:1	
Combustion System	Direct Injection	
Rotation (from flywheel end)	Counterclockwise, viewed on flywheel	
Total Coolant Capacity	10.8 L	2.85 U.S. gal
Total Lubricating Capacity	13.5 L	3.57 U.S. gal
Cooling System	Liquid	
Package Weight, Net Dry		
TA	400 kg	1882 lbs
TTA	420 kg	926 lbs

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

Features

Emissions

Meets U.S. EPA Tier 4 Final and EU Stage V emission standards.

Compliance

The engine meets the European Machinery Directive, 2006/42/EC, with each engine supplied with a Declaration of Incorporation.

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

Series turbocharging with smart wastegate available on all ratings for fast response, high power, and increased torque.

Fuel Efficiency

Fluid consumption optimized to match operating cycles of a wide range of equipment and applications.

Fuel & Oil

Tier 4 Final/Stage V engines require ultra-low sulfur diesel fuel (ULSD with 15 ppm of sulfur or less) and new oil formulations to support the new technology. Cat® engines are designed to accommodate B20 biofuel. Your Cat dealer can provide more information regarding fuel and oil.

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

Exceptional power density enables standardization across numerous applications. Multiple installation options minimize total package size. Ideal for equipment with narrow engine compartments.

Low-Cost Maintenance

Worldwide service delivers ease of maintenance and simplifies the servicing routine. Hydraulic tappets, multi-vee belts, service free DPF 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. The S•O•SSM program is available from your Cat dealer to determine oil change intervals and provide optimal performance.

Quality

Every Cat engine is manufactured to stringent standards in order to assure customer satisfaction.

World-class Product Support Offered Through Global Cat Dealer Network

- Scheduled maintenance, including S•O•S sample
- 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

Standard Engine Equipment

Air Inlet

Standard air cleaners

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 (226°F) 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

Optimized DOC/DPF/SCR system supplied with a range of inlet and outlet options. The DOC/DPF/SCR systems are service-free and, when in use, invisible to the operator.

Flywheels and Flywheel Housing

Fitted with SAE3 configuration as standard

Fuel System

Electronic high pressure common rail, ACERT™ Technology, innovative filter design to ensure maximum protection of the engine.

Lube System

Wide choice of sumps for different applications

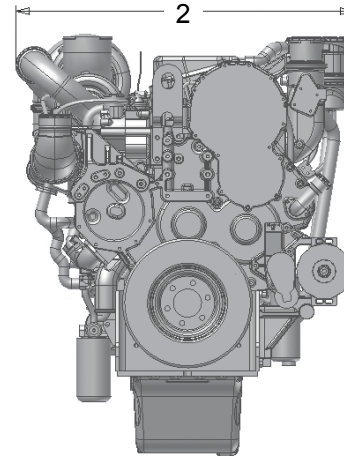
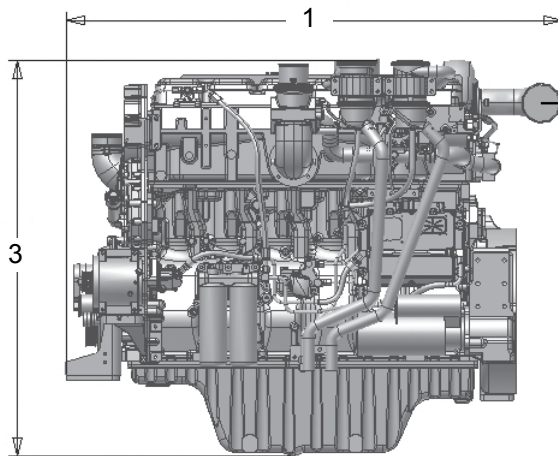
Power Take Off

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, compressors are also available

General

Available with or without a balancer

Dimensions



(1) Length —

TA: 845.1 mm (33.3 in)
TTA: 845.1 mm (33.3 in)

(2) Width —

TA: 772.4 mm (30.4 in)
TTA: 741.6 mm (29.1 in)

(3) Height (including aftertreatment) —

TA: 848.2 mm (33.4 in)
TTA: 867.6 mm (34.1 in)

Note: Final dimensions dependent on selected options

Performance Data

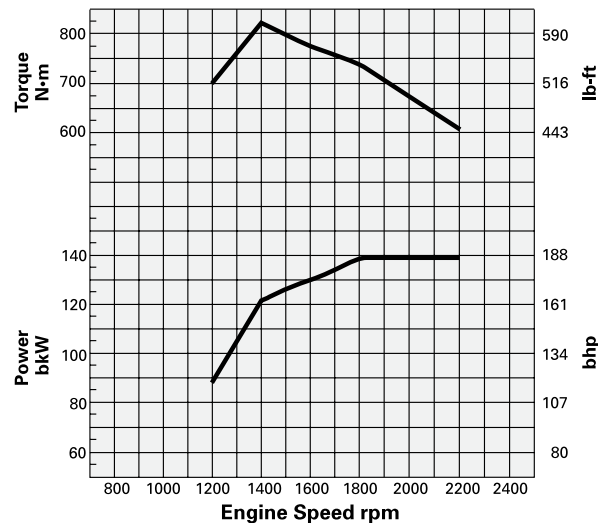
Turbocharged-Aftercooled – 2200 rpm

82-110.1 bkW/109-147.6 bhp

Rating	Speed rpm	Peak Power bkW	Peak Power bhp	Speed rpm	Peak Torque N•m	Peak Torque lb-ft
C	2200	82.0	110	1400	450	610
B	2200	85.9	115	1400	500	678
B	2200	91.0	122	1400	500	678
B	2200	92.6	124	1400	530	718
C	2200	97.9	131	1400	530	718
C	2200	102	137	1400	560	759
C	2200	106	142	1400	560	759
C	2200	110	148	1400	560	759

Series Turbocharged-Aftercooled – 2200 rpm

112-150 bkW/149-200 bhp



Rating	Speed rpm	Peak Power bkW	Peak Power bhp	Speed rpm	Peak Torque N•m	Peak Torque lb-ft
C	2200	112	150	1400	650	479
C	2200	117	156.9	1400	710	524
C	2200	129.4	173	1400	750	553
C	2200	140	187.7	1400	825	608
D	2200	149.8*	200	1400	825	608

*D Rating – maximum duty cycle of 10%

Rating Standard ISO 14396:2002

Unless otherwise specified, all stated data is for maximum rated speed and 100% load

Rating Definitions and Conditions

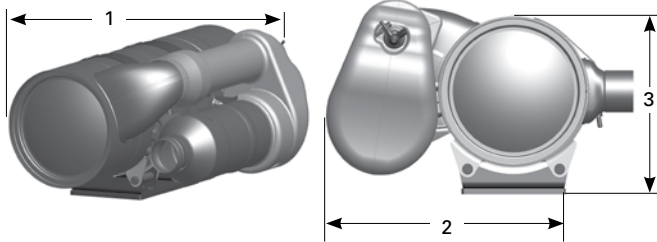
IND-B for service where power and/or speed are cyclic (time at full load not to exceed 80%).

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%).

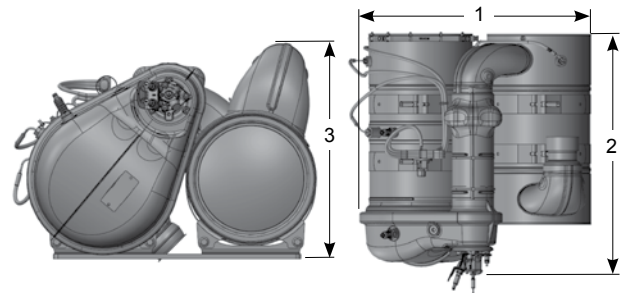
Additional ratings are available for specific customer requirements. Consult your Cat dealer.

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.

Aftertreatment Configuration



Aftertreatment 1 – 82 kW to 129 kW



Aftertreatment 2 – 129 kW to 150 kW

Approximate Size and Weight

- (1) Length — 675 mm (26.5 in)
 - (2) Width — 478 mm (18.8 in)
 - (3) Height — 390 mm (15.3 in)
- Weight — 45 kg (99 lb)

CEM Options include:

Basic Aftertreatment Package (DOC/DPF/SCR)

Note: Final dimensions dependent on configuration

Multiple Customizable Configuration Options Available

Approximate Size and Weight

- (1) Length — 610 mm (24.0 in)
 - (2) Width — 623 mm (24.5 in)
 - (3) Height — 453 mm (17.8 in)
- Weight — 65 kg (143.3 lbs)

CEM Options include:

Basic Aftertreatment Package (DOC/DPF/SCR)

Note: Final dimensions dependent on configuration

Multiple Customizable Configuration Options Available

Aftertreatment Features

Regeneration: The DOC/DPF/SCR modular design offers a simple, compact package while providing high levels of performance.

While in use, the DOC/DPF/SCR systems offer transparent operation to the user.

Mounting: Extensive range of inlets and outlets, as well as remote and on-engine installations, provide flexibility for many installations.

Service: The DOC/DPF/SCR systems are service-free for the emissions life of the engine.

Available in 12V or 24V systems

Standard Emissions Control Equipment

DOC: Diesel Oxidation Catalyst

DPF: Diesel Particulate Filter

SCR: Selective Catalytic Reduction

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

A range of SCR system components, including pump, tanks, and lines

©2018 Caterpillar
All rights reserved.

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, S•O•S, "Caterpillar Yellow", 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.