



C4.4 ACERT™ Industrial Engine

Tier 4 Interim/Stage IIIB
61.5-129.4 bkW/82.5-173.5 bhp @ 2200 rpm

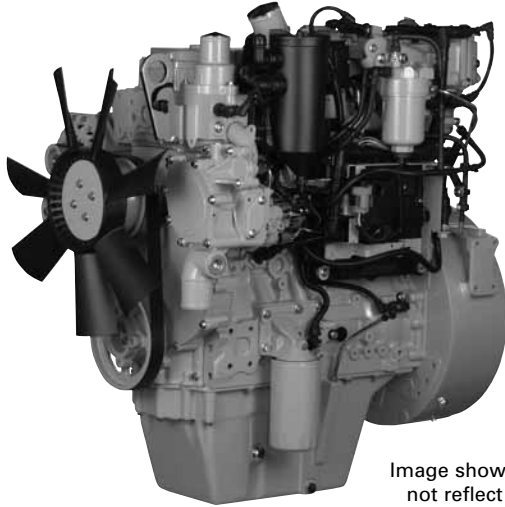


Image shown may not reflect actual engine configuration

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 (TA) or Series Turbocharged-Aftercooled (TTA)
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 System (refill) sump dependent	5.2-13.5 L (5.5-14.27 U.S. qts)
Engine Weight, Net Dry (approximate)	
TA	400 kg (926 lbs)
TTA	420 kg (881.8 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

Series turbocharging with smart wastegate available on specific 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.

Fuel & Oil

Tier 4 Interim/Stage IIIB engines require Ultra Low Sulfur Diesel (ULSD) fuel containing a maximum of 15 ppm sulfur, 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

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

Low-Cost Maintenance

Worldwide service delivers ease of maintenance and simplifies the servicing routine. 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. 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•SSM 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

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

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

Diesel particulate filter supplied with a range of inlet and outlet options, no ash service requirement, passive 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, innovative filter design to ensure maximum protection of the engine.

Lube System

Choice of sumps for different applications

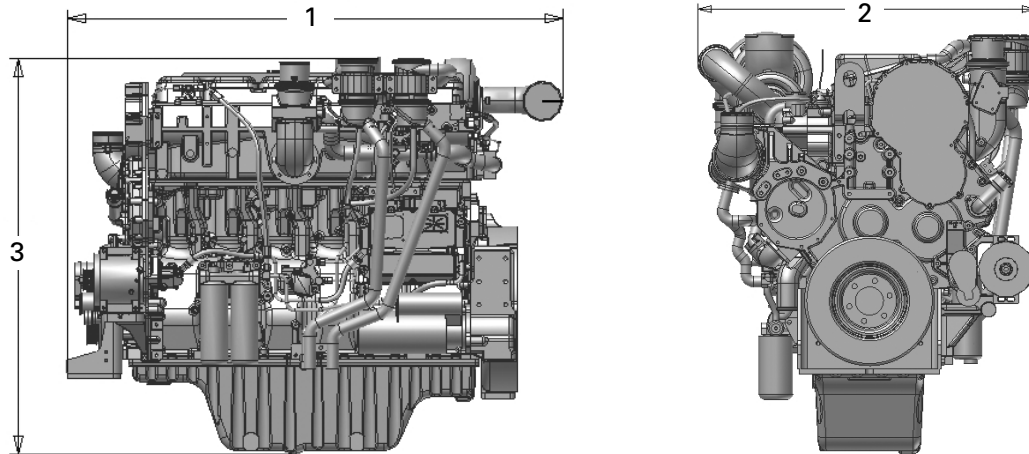
Power Take Off

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

TA, 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

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

Note: Final dimensions dependent on selected options

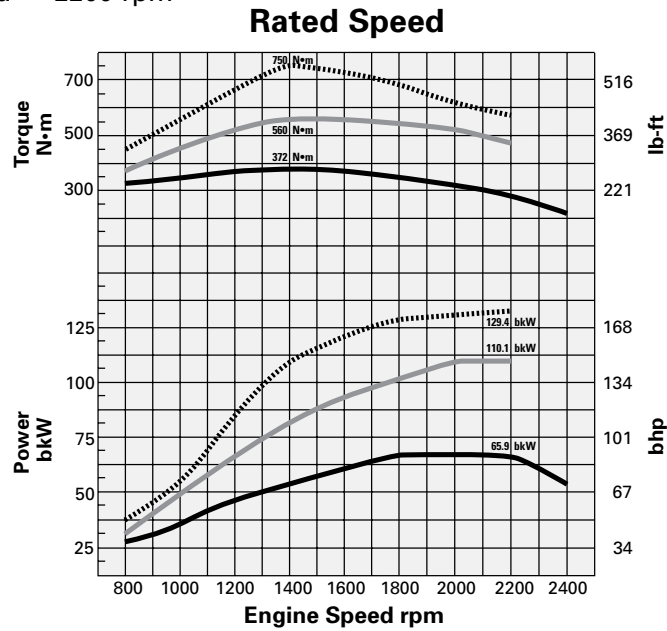


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PERFORMANCE DATA — PRELIMINARY

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
B	2200	61.5	82.5	1400	347	255.9
B*	2200	65.9	88.4	1400	370	272.9
B	2200	70.0	93.9	1400	400	295.0
C	2200	74.5	100.0	1400	450	331.9
C	2200	82.0	110.0	1400	450	331.9
B	2200	85.9	115.2	1400	480	354.0
B	2200	91.0	122.0	1400	500	368.8
B	2200	92.5	124.0	1400	530	390.9
C	2200	98.0	131.4	1400	500	368.8
C	2200	102.1	137.0	1400	560	413.0
C	2200	106.0	142.1	1400	560	413.0
C*	2200	110.1	147.6	1400	560	413.0
B	2200	105.1	141.0	1400	650	479.4
C	2200	117.0	157.0	1400	683	503.8
C*	2200	129.4	173.5	1400	750	553.2

*Curve shown

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.

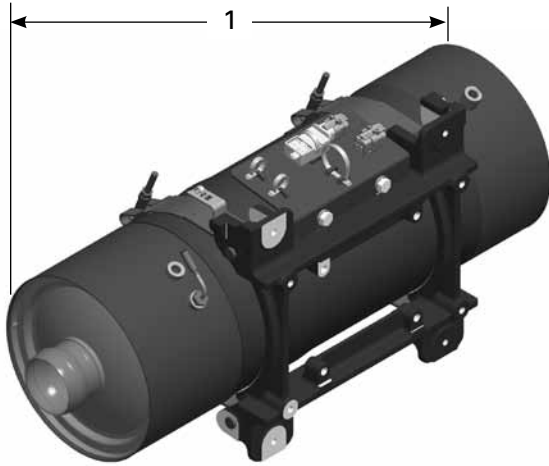
Rating Conditions are based on ISO/TR14396, inlet air standard conditions with a total barometric pressure of 100 kPa (29.5 in Hg), with a vapor pressure of 1 kPa (.295 in Hg), and 25°C (77°F). Performance is measured using fuel to EPA specifications in 40 CFR Part 1065 and EU specifications in Directive 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).



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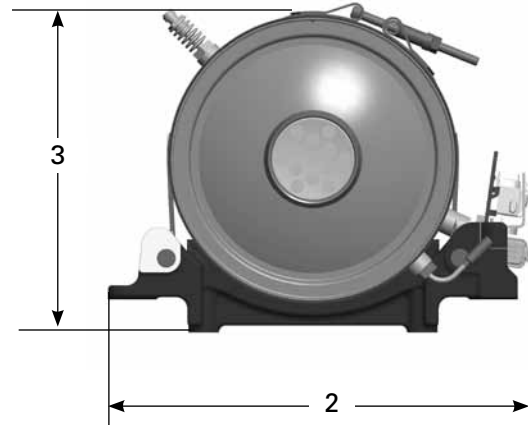
AFTERTREATMENT CONFIGURATION



Less than or equal to 82 kW (110 bhp)
**244.9 mm (9.6 in) DIAMETER BASE
CONFIGURATION**

Approximate Size and Weight

(1) Length — 802.5 mm (31.6 in)
(2) Width — 365 mm (14.3 in)
(3) Height — 279 mm (11 in)
Weight — 34 kg (75 lbs)



Greater than 82 kW (110 bhp)
**270.3 mm (10.6 in) DIAMETER BASE
CONFIGURATION**

Approximate Size and Weight

(1) Length — 828 mm (32.6 in)
(2) Width — 365 mm (14.3 in)
(3) Height — 300.5 mm (11.8 in)
Weight — 37 kg (81.6 lbs)

AFTERTREATMENT FEATURES

Regeneration: Passive 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 12V or 24V systems

STANDARD EMISSIONS CONTROL EQUIPMENT

DOC: Diesel Oxidation Catalyst

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, S•O•S, "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.