



The C1.1 Industrial Diesel Engine is offered in ratings ranging from 13.7-21.0 kW (18.4-28.2 bhp) @ 2200-3000 rpm. These ratings meet EPA Tier 4 Final emission standards. They are also available for Europe and, depending on applicable emission standards, may be introduced in other regulated and non-regulated areas. Nonroad engines less than 19 kW (25 hp) are not currently subject to EU emission standards. Industries and applications powered by C1.1 engines include: Aircraft Ground Support, Auxiliary Power Units, Bore/Drill Rigs, Chippers/Grinders, Compactors/Rollers, Construction, Forestry, General Industrial, Material Handling, Mining, Mobile Earthmoving Equipment, Mobile Light Towers, Pumps, Trenchers and Underground Mining Equipment.

Specifications

Power Rating		
Maximum Power	21 kW	28.2 HP
Maximum Torque	70 Nm @ 2300 rpm	52 lb-ft @ 2300 rpm
Minimum Power	14.7 kW	19.7 HP
Rated Speed	2200-3400 rpm	

Emission Standards	
Emissions	U.S. EPA Tier 4 Interim Equivalent. Nonroad engines less than 19 kW (25 hp) are not currently subject to EU emission standards.

General		
Engine Configuration	Inline 3, 4-Stroke-Cycle Diesel	
Bore	77 mm	3 in
Stroke	81 mm	3.2 in
Aspiration	Naturally Aspirated (NA)	
Displacement	1.13 l	69 in ³
Compression Ratio	23.0:1	
Combustion System	Indirect Injection	
Rotation from Flywheel End	Counterclockwise	

Engine Dimensions - Approximate		
Height	576 mm	22.7 in
Length	491 mm	19.3 in
Width	400 mm	15.7 in
Weight - Net Dry - Basic Operating Engine Without Optional Attachments	87 kg	191 lb

Benefits and Features

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

Delivers impressive performance throughout a wide speed range while maintaining low operating costs.

Fuel Efficiency

Fuel consumption optimized to match operating cycles of a wide range of equipment and applications while maintaining low operating costs.

Broad Application Range

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

Package Size

Ultra-compact package size ensures ease of installation as well as exceptional power density.

Quality

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

World-class Product Support Offered Through Global Cat Dealer Network

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

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Standard Equipment

Air Inlet System

- Inlet manifold with choice of inlets.

Control System

- Alternator 12 volt 40 amp
- Starter motor 12 volt
- Glow plug starting aid

Cooling System

- Belt-driven coolant pump
- Coolant temperature switch

Flywheel and Flywheel Housing

- SAE No. 6 1/2 flywheel
- Choice of SAE No. 5 or standard backplate flywheel housing

Fuel System

- Fuel injection pump
- Spin-on fuel filter
- Electronic Shut-off Solenoid (ESOS)

Lube System

- Low profile oil pan
- Spin-on lube oil filter
- Lube oil pressure switch

General

- Cast iron, engine block
- Cast iron exhaust manifold--side outlet
- Paint: Caterpillar yellow, with optional colors available at request

The International System of Units (SI) is used in this publication. CAT, CATERPILLAR, their respective logos, ADEM, EUI, 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.