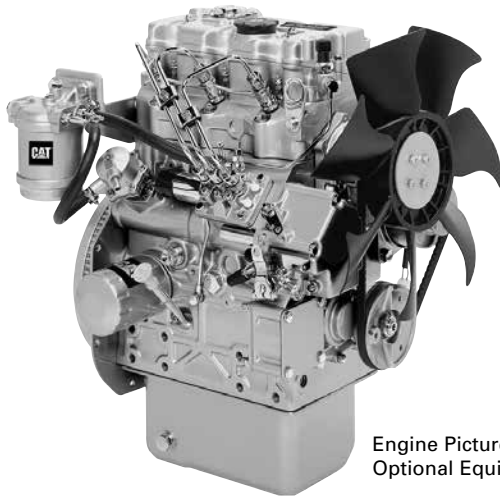




# C1.1 Industrial Engine Tier 4 Final 14.4-18.4 kW/19.3-24.7 bhp @ 1800-2800 rpm



Engine Pictured with  
Optional Equipment

## CAT® ENGINE SPECIFICATIONS

### I-3, 4-Stroke-Cycle Diesel

Bore	77 mm (3.03 in)
Stroke	81 mm (3.19 in)
Displacement	1.13 L (69.0 in <sup>3</sup> )
Aspiration	Naturally Aspirated
Compression Ratio	23:1
Combustion System	Indirect injection
Rotation (from flywheel end)	Counterclockwise
Capacity for Liquids	
Cooling System (engine only)	1.9 L (2.0 U.S. qts)
Lube Oil System (refill)	4.4 L (4.6 U.S. qts)
Engine Weight, Net Dry (approximate)	
with standard equipment	87.0 kg (191.0 lbs)

## FEATURES

### Emissions

Designed to meet U.S. EPA Tier 4 Final emission standards.

### 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. The introduction of a simple electronic governor system gives customers the flexibility of electronic machine integration if needed.

### 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.

### 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

Ultra-compact package size ensures ease of installation

as well as exceptional power density. No change to the core engine or hook-up points and a high level of component commonality from Tier 4 Interim to Tier 4 Final. This results in minimum equipment change and development costs to upgrade to Tier 4 Final, as well as common equipment configurations for export markets.

### Low-Cost Maintenance

Single-side servicing improves ease of maintenance and simplifies the servicing routine. Service intervals at 500 hours are standard.

### Testing

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

### World-class Product Support Offered Through Global Cat Dealer Network

- Scheduled maintenance
- 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

## STANDARD EQUIPMENT

### Air Inlet

Inlet manifold with choice of inlets

### Control System

Alternator 12 volt 40 amp, starter motor 12 volt, cold start capability to -20°C (-4°F)

### Cooling System

Belt-driven coolant pump, coolant temperature switch, choice of cooling fans

### Flywheel and Flywheel Housing

Standard backplate flywheel housing and flatface flywheel

### Fuel System

Fuel injection pump, spin-on fuel filter

### Lube System

Lube oil filter, lube oil pressure switch, lube oil sump

### Power Take Off

Provision for PTO

### General

Cast iron engine block and cylinder head, cast iron exhaust manifold — side outlet

**Web Site: For additional information on all your power requirements, visit [www.cat-industrial.com](http://www.cat-industrial.com).**



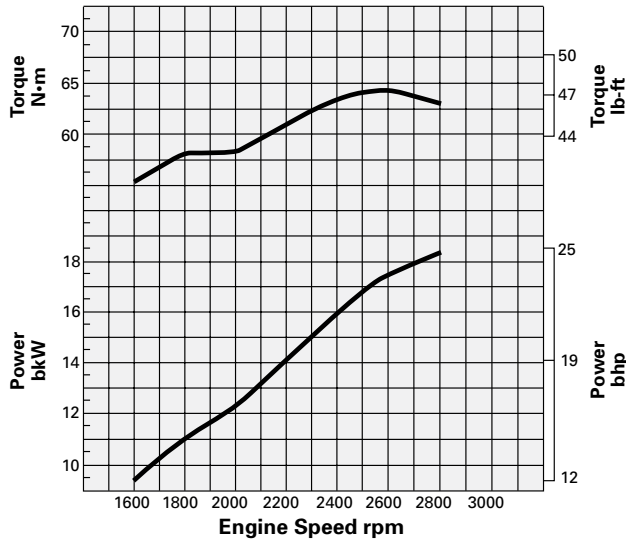
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Tier 4 Final

14.4-18.4 bkW/19.3-24.7 bhp @ 1800-2800 rpm

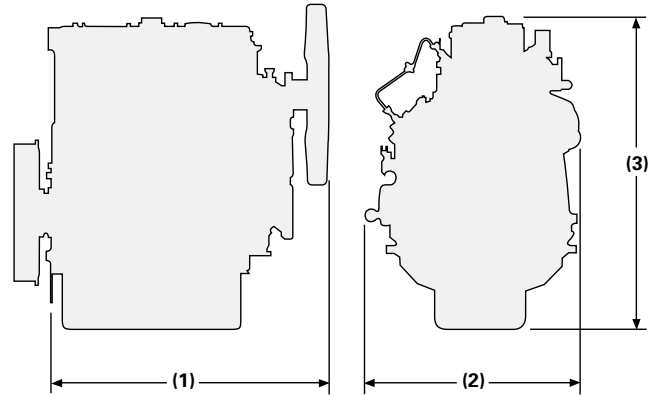
## PERFORMANCE DATA

Naturally Aspirated — 2800 rpm



Speed rpm	Power bkW	Torque N·m	Power bhp	Torque lb-ft
2800	18.4	64.6	24.7	47.6

## DIMENSIONS



(1) Length	491 mm (19.33 in)
(2) Width	400 mm (15.74 in)
(3) Height	576 mm (22.67 in)

Note: Dimensions depend on final specifications.

## 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 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 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).

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