CAT® ENGINE SPECIFICATIONS

**I-4, 4-Stroke-Cycle Diesel**
- **Bore**: 84 mm (3.3 in)
- **Stroke**: 100 mm (3.9 in)
- **Displacement**: 2.216 L (135 in³)
- **Aspiration**: Naturally Aspirated
- **Compression Ratio**: 23.3:1
- **Combustion System**: Indirect Injection
- **Rotation (from flywheel end)**: Counterclockwise
- **Cooling System (engine only)**: 3.6 L (3.8 U.S. qts)
- **Lube Oil System (refill)**: 10.6 L (11.2 U.S. qts)
- **Engine Weight, Net Dry (approx)**: 218 kg (480.6 lb)

**FEATURES**

**Emissions**
Meets 2013 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.

**High Performance**
Substantial torque rise delivers impressive performance through 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.

**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

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

Air Inlet
Inlet manifold with choice of inlets

Control System
Alternator 12V 85A, starter motor 12V, glow plug starting aid

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

Flywheel & Flywheel Housing
SAE No. 7-1/2, SAE No. 8, or SAE No. 10 flywheel, choice of SAE No. 4 or standard backplate flywheel housing

Fuel System
Simple, robust indirect injection fuel pump, spin-on fuel filter

Lube System
Alternative oil fillers, spin-on lube oil filter, lube oil pressure switch, lube oil sump

Power Take-Off
SAE A PTO drive

General
Cast iron engine block, cast iron exhaust manifold – side outlet, cold start capability to -20°C (-4°F), gradeability 35° continuous

DIMENSIONS

| (1) Length | 727 mm (28.6 in) |
| (2) Width  | 596 mm (23.5 in) |
| (3) Height | 758 mm (29.9 in) |

Note: Dimensions depend on final specifications.
Naturally Aspirated — 2400-3000 rpm

**Performance Data — Preliminary**

**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 7.1 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 U.S. 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).
C2.2
Industrial Engine
Tier 4 Final
31.4-36.4 bkW/42.1-48.8 bhp @ 2400-3000 rpm

AFTERTREATMENT CONFIGURATION

198 mm (7.8 in) Diameter Base Configuration

Approximate Size and Weight
(1) Length — 449 mm (17.6 in)
Weight — 16 kg (35.3 lbs)

Note: Final weight and dimensions will depend on completed specification.

AFTERTREATMENT FEATURES

Regeneration:
Highly effective passive regeneration under most operating environments and cycles. Automatic, transparent active regeneration back up system during light load or adverse operating cycles. Wall flow DPF and through-flow DOC to effectively remove and manage emissions.

Mounting: Multiple off- and on-engine installation options provide customers with simple and flexible solutions for many applications.

Service: Minimum 3,000 hour DPF ash service intervals.

STANDARD EMISSIONS CONTROL EQUIPMENT

DPF: Diesel Particulate Filter with range of outlet options

DOC: Diesel Oxidation Catalyst

Materials and specifications are subject to change without notice. The International System of Units (SI) is used in this publication.
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