



# Cat<sup>®</sup> CS10 GC

## *Smooth Drum Vibratory Soil Compactor*

*The Cat<sup>®</sup> CS10 GC features a smooth drum and is ideally suited for granular soil applications with the use of an optional padfoot shell kit for cohesive soil applications.*

### **Superior Compaction Performance**

- High weight at the drum and high amplitude deliver superior compaction performance

### **Comfortable and Ergonomic Operator Station**

- Simple controls are within reach
- Outstanding visibility to the front and rear of the machine

### **Proven and Exclusive Cat Features**

- Includes the ultra-reliable pod-style vibratory system and sealed-for-life hitch bearing

### **Reliable Cat Engine**

- The Cat engine provides ample power and consistent performance
- Standard Eco-mode reduces fuel use during normal operation

### **Simple Maintenance**

- Maintenance-free hitch bearings and extended maintenance intervals for vibratory system and hydraulic system provide more uptime and lower maintenance costs

### **Optional Cat Compaction Control Technology**

- Compaction control helps the operator determine when compaction has been completed to specification for greater productivity and uniform compaction quality
- Accelerometer-based (CMV) and exclusive Machine Drive Power (MDP) measurement technologies available
- Scalable solutions can be configured to meet customer needs



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## Standard and Optional Equipment

Standard and optional equipment may vary. Consult your Cat dealer for details.

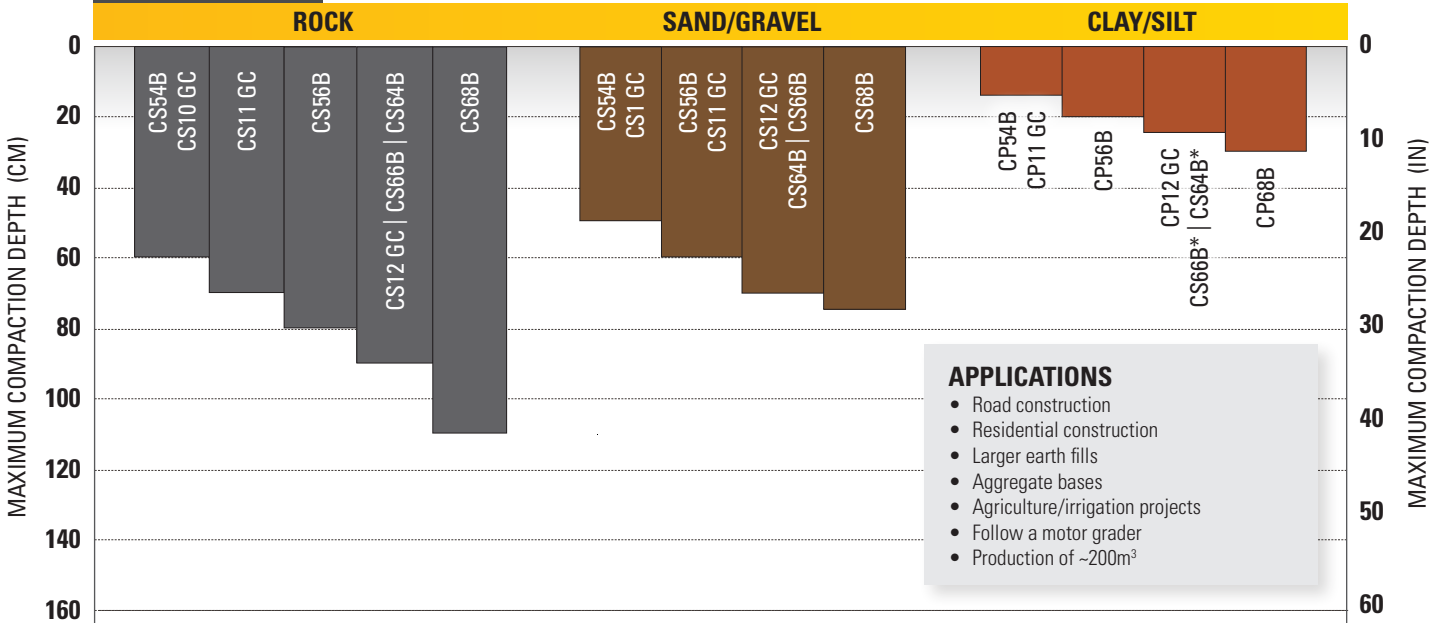
	Standard	Optional		Standard	Optional
<b>OPERATOR ENVIRONMENT</b>			<b>POWERTRAIN</b>		
ROPS/FOPS Canopy with Handrails/ Guardrails, Floormat	✓		Cat® C3.6 Diesel Engine, 4 cylinder	✓	
Vinyl Adjustable Seat, Seat Belt	✓		Single Propel Pump	✓	
Adjustable Tilting Steering Column	✓		Fuel Filter, Water Separator, Priming Pump, Water Indicator	✓	
12-volt Power Outlet	✓		Radiator/Hydraulic Oil Cooler	✓	
Horn, Backup Alarm	✓		Dual Braking System	✓	
Internal Rear View Mirror	✓		Two-speed Hydrostatic Transmission	✓	
ROPS/FOPS Cab with Climate Control		✓	Transmission Guard		✓
Deluxe High-back Air-ride Seat (Cab)		✓	<b>TECHNOLOGY SOLUTIONS</b>		
Sun/Debris Shields (Canopy)		✓	Measure - Machine Drive Power and/or CMV		✓
Cab Internal Roll-down Sun Screen (Cab)		✓	Map - SBAS GNSS Mapping		✓
Rear View Camera with Color Touchscreen Display		✓	Connect - Cloud and Machine Connectivity		✓
Sound Reduction Kit		✓	<b>ELECTRICAL</b>		
<b>VIBRATORY SYSTEM</b>			12 volt Electrical System	✓	
Smooth Drum	✓		150 ampere Alternator	✓	
Dual Amplitude, Dual Frequency	✓		900 Cold-cranking Amps Battery Capacity	✓	
Pod-Style Eccentric Weight Housings	✓		<b>OTHER</b>		
Auto-vibe Function	✓		Product Link™	✓	
Rear Adjustable Steel Scraper	✓		Sight Gauges for Hydraulic Oil Level and Radiator Coolant Level	✓	
Padfoot Shell Kit (oval or square pads available)		✓	S-O-S <sup>SM</sup> Sampling Valves: Engine Oil, Hydraulic Oil and Coolant	✓	
Dual Adjustable Steel Scrapers		✓	High Ambient Temperature Oil Factory Fill		✓
Dual Adjustable Polyurethane Scrapers		✓	Printer Port		✓
			Seat Belt Switch		✓
			Upgraded LED Light Package		✓
			Amber Rotating Beacon		✓
			XT Weight Kit		

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## Vibratory Soil Compactor Selection Guide

**10 - 15 T**

Assumes density specification is 95% of Standard Proctor and can vary substantially due to different soil conditions.



- APPLICATIONS**
- Road construction
  - Residential construction
  - Larger earth fills
  - Aggregate bases
  - Agriculture/irrigation projects
  - Follow a motor grader
  - Production of ~200m<sup>3</sup>

**Rock**  
Smooth drum, high amplitude moving to low amplitude when approaching compaction, 4-8 passes  
  
Size: Less than 50 mm (2 in) diameter

**Sand/Gravel**  
Smooth drum, high amplitude moving to low amplitude when approaching compaction, 4-6 passes

**Clay/Silt**  
Padfoot and smooth drum application (for smoothing), 4-10 passes. Compaction in cohesive soils strongly depends on moisture content.  
  
\* Smooth drum model equipped with padfoot shell kit

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## Technical Specifications

### Engine - Powertrain

Engine Model	Cat C3.6	
Emissions	U.S. EPA Tier 4 Final EU Stage V	
Engine Power ISO14396:2002	90.0 kW	121.0 hp
Gross Power SAE J1995:2014	91.7 kW	122.9 hp
Net Power ISO 9249:2007*	83.7 kW	112.2 hp
Net Power SAE J1349:2011*	82.9 kW	111.2 hp
Displacement	3.6 L	219.7 in <sup>3</sup>
Stroke	120 mm	4.7 in
Bore	98 mm	3.9 in
Max. Travel Speed (Forward or Reverse)	11 km/h	6.8 mph
Theoretical Gradeability, with or without vibration**	55%	

### Vibratory System Specifications

Nominal Amplitude - High	2.0 mm	0.079 in
Frequency at High Idle	30.0 Hz	1800 vpm
Frequency at Eco-Mode	28.6 Hz	1716 vpm
Nominal Amplitude - Low	1.0 mm	0.039 in
Frequency at High Idle	33 Hz	1980 vpm
Frequency at Eco-Mode	31.5 Hz	1890 vpm
Centrifugal Force		
Maximum	250 kN	56,200 lb
Minimum	149 kN	33,500 lb
Static Linear Load		
w/ ROPS/FOPS Canopy	27.3 kg/cm	153.0 lbs/in
w/ ROPS/FOPS Cab	27.5 kg/cm	154.1 lbs/in
French Classification, data/class w/ ROPS/FOPS Cab	38.9	VM2

### Service Refill Capacities

Fuel Tank, total capacity	213 L	56.3 gal
Diesel Exhaust Fuel refill capacity	19 L	5.0 gal
Cooling System	18.5 L	4.9 gal
Engine Oil w/ Filter	11.6 L	3.1 gal
Eccentric Weight Housings (combined)	26 L	6.9 gal
Axle and Final Drives	10 L	2.6 gal
Hydraulic Tank (service refill)	23 L	6.1 gal

### Weights

Operating Weight w/ ROPS/FOPS Canopy	10 340 kg	22,796 lb
w/ XT Weight Kit	11 353 kg	25,030 lb
w/ Oval Padfoot Shell Kit	12 022 kg	26,503 lb
w/ Square Padfoot Shell Kit	12 181 kg	26,854 lb
w/ Padfoot Bumper, no shell	10 505 kg	23,158 lb
Operating Weight w/ ROPS/FOPS Cab***	10 494 kg	23,136 lb
w/ XT Weight Kit	11 507 kg	25,369 lb
w/ Oval Padfoot Shell Kit	12 176 kg	26,843 lb
w/ Square Padfoot Shell Kit	12 335 kg	27,194 lb
w/ Padfoot Bumper, no shell	10 659 kg	23,498 lb
Weight at Drum w/ ROPS/FOPS Canopy	5830 kg	12,853 lb
w/ XT Weight Kit	7170 kg	15,807 lb
w/ Oval Padfoot Shell Kit	7458 kg	16,442 lb
w/ Square Padfoot Shell Kit	7617 kg	16,793 lb
w/ Padfoot Bumper, no shell	5941 kg	13,098 lb
Weight at Drum w/ ROPS/FOPS Cab	5873 kg	12,948 lb
w/ XT Weight Kit	7213 kg	15,902 lb
w/ Oval Padfoot Shell Kit	7501 kg	16,538 lb
w/ Square Padfoot Shell Kit	7660 kg	16,888 lb
w/ Padfoot Bumper, no shell	5984 kg	13,193 lb

\* Net power advertised is the power available at the engine flywheel when equipped with a fan at maximum speed, air cleaner, and alternator.

\*\* Actual gradeability may vary based on site conditions and machine configuration. Refer to the Operation and Maintenance Manual for more information.

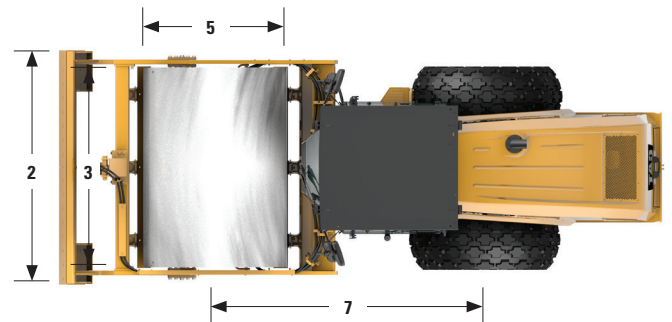
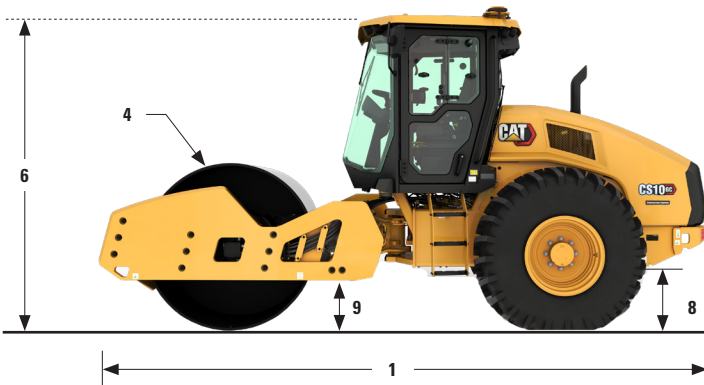
\*\*\* Standard operating weight considers full fuel tank, 75 kg operator, flotation tires, smooth drum, and cab with A/C.

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## Technical Specifications

Dimensions			
1	Overall Length	5.7 m	18.7 ft
2	Overall Width	2.3 m	7.5 ft
3	Drum Width	2134 mm	84 in
4	Drum Shell Thickness	25 mm	1 in
5	Drum Diameter	1535 mm	60.4 ft
6	Maximum Overall Height	3.0 m	9.8 ft
7	Wheelbase	3.0 m	9.8 ft
8	Ground Clearance	518 mm	20.4 in
9	Curb Clearance	492 mm	19.4 in
	Inside Turning Radius	3.8 m	12.7 ft
	Hitch Articulation Angle	34°	
	Hitch Oscillation Angle	15°	

Optional Padfoot Shell Kit Specifications			
Number of Pads		120	
Pad Height, oval pads		89.8 mm	3.5 in
Pad Face Area, oval pads		63.5 cm <sup>2</sup>	9.8 in <sup>2</sup>
Pad Height, optional square pads		89.8 mm	3.5 in
Pad Face Area, optional square pads		105.7 cm <sup>2</sup>	16.4 in <sup>2</sup>
Number of Chevrons		16	



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## Environmental Declaration

The following information applies to the machine at the time of final manufacture as configured for sale in the regions covered in this document. The content of this declaration is valid as of the date issued; however, content related to machine features and specifications are subject to change without notice. For additional information, please see the machine's Operation and Maintenance Manual.

For more information on sustainability in action and our progress, please visit [www.caterpillar.com/en/company/sustainability.html](http://www.caterpillar.com/en/company/sustainability.html).

## ENGINE

- The Cat C3.6 is available in configurations that meet U.S. EPA Tier 4 Final and EU Stage V emission standards.
- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels up to:
  - ✓ 20% biodiesel FAME (fatty acid methyl ester)\*
  - ✓ 100% renewable diesel, HVO (hydrogenated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.

*\*Engines with no aftertreatment devices can use higher blends, up to 20 % biodiesel.*

## AIR CONDITIONING SYSTEM

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 2.2 kg (4.91 lb) of refrigerant, which has a CO<sub>2</sub> equivalent of 3.146 metric tonnes (3.468 tons).

## PAINT

- Based on best available knowledge, the maximum allowable concentration, measured in parts per million (PPM), of the following heavy metals in paint are:
  - Barium < 0.01%
  - Cadmium < 0.01%
  - Chromium < 0.01%
  - Lead < 0.01%

## SOUND PERFORMANCE

With cooling fan speed at maximum value:

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Exterior Sound Pressure Level (SAE J88:2013) – 107 dB(A)

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Operator Sound Pressure Level (ISO 6396:2008) – 85 dB(A)

- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166 OCT98, meets OSHA and MSHA requirements for operator sound exposure limits in effect at time of manufacture.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in a noisy environment.

## OILS AND FLUIDS

- Caterpillar factory fills with ethylene glycol coolants. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) can be recycled. Consult your Cat dealer for more information.
- Cat BIO HYDO™ Advanced is an EU Ecolabel approved biodegradable hydraulic oil.
- Additional fluids are likely to be present, please consult the Operations and Maintenance Manual or the Application and Installation guide for complete fluid recommendations and maintenance intervals.

## FEATURES AND TECHNOLOGY

- The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.
  - Standard eco-mode limits engine RPM, lowering overall fuel consumption by up to 10% compared to high idle
  - Optional compaction control reduces unnecessary passes, contributing to lower overall fuel consumption
  - Extended maintenance intervals reduce fluid and filter consumption
  - Auto engine idle shutdown reduces unproductive hours and fuel burned



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Build Number: 01A

