



# CS12 GC

## Vibratory Soil Compactor

# Technical Specifications

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

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# CS12 GC Vibratory Soil Compactor Specifications

## ENGINE

Engine Model	Cat® C4.4	
Gross Power - ISO 14396:2002	83 kW	111.3 hp
Gross Power - SAE J1995:2014	83.8 kW	112.4 hp
Net Power - ISO 9249:2007	79.4 kW	106.5 hp
Net Power - SAE J1349:2011	78.5 kW	105.3 hp
Displacement	4.4 L	268.5 in <sup>3</sup>
Stroke	127 mm	5 in
Bore	105 mm	4.1 in

- Cat C4.4 engine meets Brazil MAR-1, equivalent to U.S. EPA Tier 3 and EU Stage IIIA emission standards.
- The power ratings apply at an engine speed of 2,200 rpm when tested under the conditions for the specified standard in effect at the time of manufacture. The stated speed is when tested under the reference conditions for the specified standards.
- Net power advertised is the power available at the engine flywheel when equipped with a fan at maximum speed, air cleaner, clean emissions module, and alternator with engine speed at 2,200 rpm.
- The gross power advertised is with the fan at maximum speed.

## SERVICE REFILL CAPACITIES

Fuel Tank (total capacity)	248 L	65.5 gal
Cooling System	18.5 L	4.9 gal
Engine Oil w/ Filter	9.5 L	2.5 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

## SOUND PERFORMANCE (declared)

ISO 6393:2008 (external)	107 dB(A)
ISO 6394:2008 (inside cab)	81 dB(A)

## SOUND PERFORMANCE (tested)

- The declared static operator sound pressure level is measured according to the static test procedures and conditions that are specified in ISO 6394 (interior) and ISO 6393 (exterior). The sound level may vary at different engine and/or cooling fan speeds. The measurement was conducted with the cab doors and the cab windows closed. The cab was properly installed and maintained.
- 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.

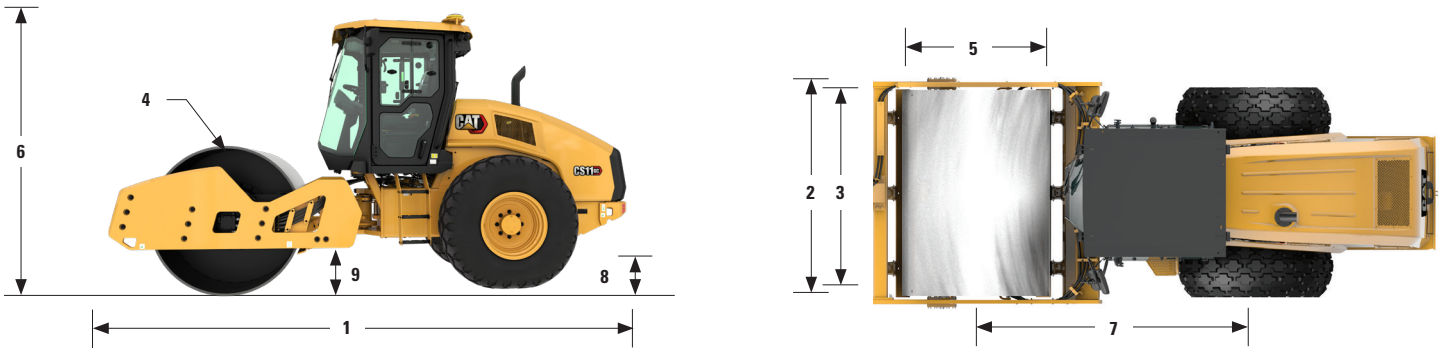
## STANDARDS

Brakes	Brakes meet ISO 3450:2011 standards
Cab/ROPS	ROPS/FOPS meet ISO 3471:2008 and ISO 3449:2005 Level II standards

# CS12 GC Vibratory Soil Compactor Specifications

## DIMENSIONS

All dimensions are approximate



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	1.0 in
5 Drum Diameter	1535 mm	60.4 in
6 Overall Height		
Smooth Drum	3 m	9.8 ft
Optional Shell Kit Equipped	3.0 m	9.9 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	3.86 m	12.7 ft
Hitch Articulation Angle		34°
Hitch Oscillation Angle		15°

## PADFOOT SPECIFICATION

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, Square pads	89.8 mm	3.5 in
Pad Face Area, Square pads	105.6 cm <sup>2</sup>	16.4 in <sup>2</sup>
Number of Chevrons		16

# CS12 GC Vibratory Soil Compactor Specifications

## DRIVE

Maximum Travel Speed		
High Idle	11 km/h	6.84 mph
Eco-mode	9.4 km/h	5.84 mph
Maximum Working Speed		
High Idle	5.6 km/h	3.5 mph
Eco-mode	5.0 km/h	3.1 mph
Rimpull	57 kN	12 814 lbf
Theoretical Gradeability, with or without vibration	50%	

- Maximum Travel speeds is measure with smooth drum and Diamond tire configured.
- Actual gradeability may vary based on site conditions and machine configuration. Refer to the Operation and Maintenance Manual for more information.

## VIBRATION SYSTEM

Nominal Amplitude - High		
Standard Frequency	2.0 mm	0.079 in
Eco-mode Frequency	30 Hz	1800 vpm
Nominal Amplitude - Low		
Frequency	28.6 Hz	1716 vpm
Eco-mode Frequency	1.0 mm	0.039 in
Frequency	33 Hz	1980 vpm
Eco-mode Frequency	31.5 Hz	1890 vpm
Centrifugal Force		
Maximum	250 kN	56 202 lbf
Minimum	149 kN	33 497 lbf

### w/ Oval Padfoot

Nominal Amplitude - High		
Standard Frequency	1.41 mm	0.06 in
Eco-mode Frequency	30 Hz	1800 vpm
Nominal Amplitude - Low		
Frequency	28.6 Hz	1716 vpm
Eco-mode Frequency	0.67 mm	0.03 in
Frequency	33 Hz	1980 vpm
Eco-mode Frequency	31.5 Hz	1890 vpm

### w/ Square Padfoot

Nominal Amplitude - High		
Standard Frequency	1.37 mm	0.05 in
Eco-mode Frequency	30 Hz	1800 vpm
Nominal Amplitude - Low		
Frequency	28.6 Hz	1716 vpm
Eco-mode Frequency	0.65 mm	0.03 in
Frequency	33 Hz	1980 vpm
Eco-mode Frequency	31.5 Hz	1890 vpm

# CS12 GC Vibratory Soil Compactor Specifications

OPERATION SPECIFICATION	Sun Canopy		ROPS/FOPS Canopy		ROPS/FOPS Cab	
<b>Operating Weight - Standard</b>	<b>12 321 kg</b>	<b>27,163 lb</b>	<b>12 499 kg</b>	<b>27,555 lb</b>	<b>12 653 kg</b>	<b>27,894 lb</b>
At Drum	7646 kg	16,857 lb	7715 kg	17,009 lb	7758 kg	17,104 lb
Static Linear Load	35.8 kg/cm	200.6 lb/in	36.2 kg/cm	202.5 lb/in	36.4 kg/cm	203.6 lb/in
French Classification, data/class						
High Amplitude	50.7	VM3	51.1	VM3	51.4	VM3
Low Amplitude	35.8	VM2	36.2	VM2	36.4	VM2
<b>w/ Oval Shell Kit</b>	<b>12 989 kg</b>	<b>28,636 lb</b>	<b>13 167 kg</b>	<b>29,027 lb</b>	<b>13 321 kg</b>	<b>29,367 lb</b>
At Drum	7934 kg	17,491 lb	8003 kg	17,644 lb	8046 kg	17,738 lb
French Classification, data/class						
High Amplitude	44.1	VM3	44.5	VM3	44.8	VM3
Low Amplitude	30.4	VM2	30.7	VM2	30.9	VM2
<b>w/ Square Shell Kit</b>	<b>13 148 kg</b>	<b>28,986 lb</b>	<b>13 326 kg</b>	<b>29,378 lb</b>	<b>13 480 kg</b>	<b>29,718 lb</b>
At Drum	8093 kg	17,841 lb	8162 kg	17,994 lb	8205 kg	18,089 lb
French Classification, data/class						
High Amplitude	44.4	VM3	44.8	VM3	45.0	VM3
Low Amplitude	30.6	VM2	30.8	VM2	31.0	VM2
<b>w/ Padfoot Bumper, no shell</b>	<b>11 472 kg</b>	<b>25,291 lb</b>	<b>11 650 kg</b>	<b>25,683 lb</b>	<b>11 804 kg</b>	<b>26,002 lb</b>
At Drum	6417 kg	14,146 lb	6486 kg	14,299 lb	6529 kg	14,394 lb
Static Linear Load	30.1 kg/cm	168.4 lb/in	30.4 kg/cm	170.2 lb/in	30.6 kg/cm	171.3 lb/in
French Classification, data/class						
High Amplitude	42.5	VM3	43.0	VM3	43.3	VM3
Low Amplitude	30.1	VM2	30.4	VM2	30.6	VM2

- All operating weights and Static Linear Load shown are based on standard configurations with full level fluids, 75 kg operator, smooth drum w/ smooth/shell kit drum w/ diamond tires, padded drum w/bar tread tires and cab w/ heat & A/C.
- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 2.2 kg of refrigerant, which has a CO2 equivalent of 3.146 metric tonnes.

# CS12 GC Vibratory Soil Compactor Specifications

## 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>		
Sun Canopy with Platform Handrails/ Guardrails, Floor Mat	✓		Cat® C4.4 Diesel Engine, 4-cylinder	✓	
Vinyl Adjustable Seat, Seat Belt	✓		Single Propel Pump	✓	
Adjustable Tilting Steering Column	✓		Dual Fuel Filter, Water Separator, Priming Pump, Water Indicator	✓	
12-volt Power Outlet	✓		Radiator/Hydraulic Oil Cooler, Charge Air Cooler	✓	
Horn, Backup Alarm	✓		Dual Braking System	✓	
Internal Rear View Mirror	✓		Two-Speed Hydrostatic Transmission	✓	
ROPS/FOPS Canopy with Handrails/ Guardrails, Floormat		✓	Transmission Guard		✓
ROPS/FOPS Cab with Climate Control		✓	<b>TECHNOLOGY SOLUTIONS</b>		
Rear View Camera with Color Touchscreen Display (Cab)		✓	Measure - Machine Drive Power and/or CMV		✓
Sun/Debris Shields (Canopy)		✓	Map - SBAS GNSS Mapping		✓
Cab Internal Roll-down Sun Screen (Cab)		✓	Connect - Machine-to-Machine Communication		✓
Sound Reduction Kit		✓	<b>ELECTRICAL</b>		
Sun Visor (Cab)		✓	12-volt Electrical System	✓	
Vinyl Suspension Seat with Arm Rest		✓	120 ampere Alternator	✓	
Deluxe High-Back Air-ride Seat (Cab)		✓	900 Cold-Cranking Amps Battery Capacity	✓	
<b>VIBRATORY SYSTEM</b>			<b>OTHER</b>		
Smooth Drum	✓		Product Link™	✓	
Dual Amplitude, Dual Frequency	✓		Sight Gauges for Hydraulic Oil Level and Radiator Coolant Level	✓	
Pod-Style Eccentric Weight Housings	✓		S•O•S <sup>SM</sup> Sampling Valves: Engine Oil, Hydraulic Oil, and Coolant	✓	
Auto-Vibe Function	✓		High Ambient Temperature Oil Factory Fill		✓
Rear Adjustable Steel Scraper	✓		Additional External Rear View Mirror		✓
Padfoot Shell Kit (oval or square pads available)		✓	Upgraded LED Light Package		✓
Dual Adjustable Steel Scrapers		✓	Amber Rotating Beacon		✓
Dual Adjustable Polyurethane Scrapers		✓	Lug Tread Tires		✓



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