



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® C3.6	
Gross Power - ISO 14396	90 kW	120.7 hp
Gross Power - SAE J1995	91.7 kW	123 hp
Net Power - ISO 9249	83.7 kW	112.2 hp
Net Power - SAE J1349	82.9 kW	111.2 hp
Displacement	3.6 L	219.7 in ³
Stroke	120 mm	4.7 in
Bore	98 mm	3.9 in

- Cat C3.6 engine meets US EPA Tier 4 Final / EU Stage V emission standards.
- The power ratings apply at an engine speed of 2,000 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 2,000 rpm.
- The gross power advertised is with the fan at maximum speed.

SERVICE REFILL CAPACITIES

Fuel Tank (total capacity)	213 L	56.3 gal
Diesel Exhaust Fluid (DEF) 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

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.

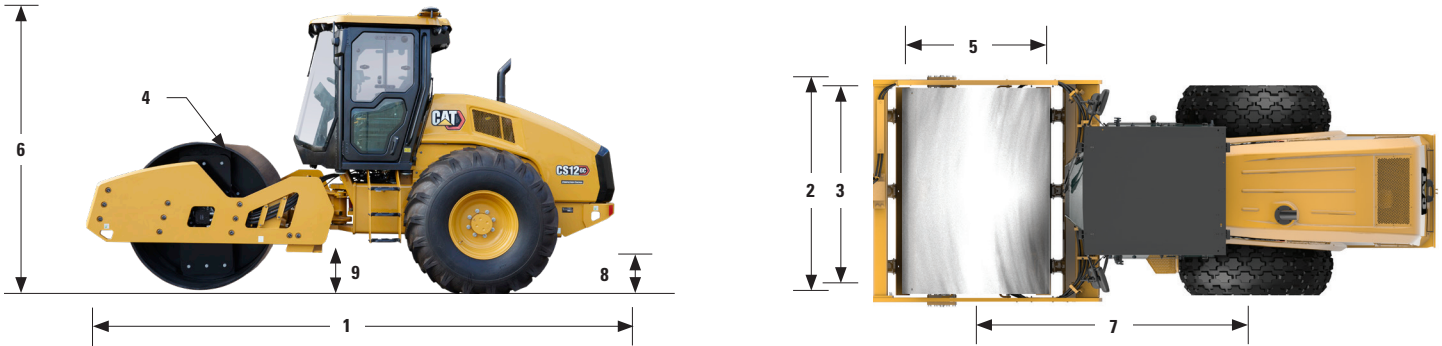
STANDARDS

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

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DIMENSIONS

All dimensions are approximate



1 Overall Length	5.70 m	18.71 ft
2 Overall Width	2.30 m	7.53 ft
3 Drum Width	2134 mm	84 in
4 Drum Shell Thickness	25 mm	0.98 in
5 Drum Diameter	1535 mm	60.4 in
6 Overall Height		
Smooth Drum	3.0 m	9.8 ft
Optional Shell kit equipped	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	3.86 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 ²	9.8 in ²
Pad Height, square pads	89.8 mm	3.5 in
Pad Face Area, square pads	105.6 cm ²	16.4 in ²
Number of Chevrons		16

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DRIVE

Max. Travel Speed

High Idle	11 km/h	6.84 mph
Eco-mode	9.4 km/h	5.84 mph

Max. 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
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Theoretical Gradeability, with or without vibration	50%	
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- 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	2.0 mm	0.079 in
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Standard Frequency	30 Hz	1800 vpm
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Eco-mode Frequency	28.6 Hz	1716 vpm
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Nominal Amplitude - Low	1.0 mm	0.039 in
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Frequency	33 Hz	1980 vpm
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Eco-mode Frequency	31.5 Hz	1890 vpm
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Centrifugal Force

Maximum	250 kN	56 202 lbf
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Minimum	149 kN	33 497 lbf
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w/ Oval Padfoot

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

Nominal Amplitude - High	1.37 mm	0.05 in
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Standard Frequency	30 Hz	1800 vpm
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Eco-mode Frequency	28.6 Hz	1716 vpm
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Nominal Amplitude - Low	0.65 mm	0.03 in
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Frequency	33 Hz	1980 vpm
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Eco-mode Frequency	31.5 Hz	1890 vpm
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CS12 GC Vibratory Soil Compactor Specifications

OPERATION SPECIFICATION	ROPS/FOPS Canopy		ROPS/FOPS Cab	
Operating Weight - Standard	12 501 kg	27,560 lb	12 655 kg	27,900 lb
At Drum	7691 kg	16,955 lb	7734 kg	17,051 lb
Static Linear Load	36.0 kg/cm	201.8 lb/in	36.2 kg/cm	202.9 lb/in
French Classification, data/class				
High Amplitude	51.0	VM3	51.3	VM3
Low Amplitude	36.0	VM2	36.2	VM2
w/ Oval Shell Kit	13 169 kg	29,033 lb	13 323 kg	29,372 lb
At Drum	7979 kg	17,590 lb	8022 kg	17,685 lb
French Classification, data/class				
High Amplitude	44.4	VM3	44.6	VM3
Low Amplitude	30.6	VM2	30.8	VM2
w/ Square Shell Kit	13 328 kg	29,383 lb	13 482 kg	29,723 lb
At Drum	8138 kg	17,940 lb	8181 kg	18,036 lb
French Classification, data/class				
High Amplitude	44.6	VM3	44.9	VM3
Low Amplitude	30.7	VM2	30.9	VM2
w/ Padfoot Bumper, no shell	11 652 kg	25,688 lb	11 806 kg	26,028 lb
At Drum	6462 kg	14,245 lb	6505 kg	14,341 lb
Static Linear Load	30.3 kg/cm	169.6 lb/in	30.5 kg/cm	170.7 lb/in
French Classification, data/class				
High Amplitude	42.8	VM3	43.1	VM3
Low Amplitude	30.3	VM2	30.5	VM2

- All operating weights and Static Linear Load shown are based on standard configurations with full level fluids, 75 kg operator, 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.

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Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
OPERATOR ENVIRONMENT			POWER TRAIN		
ROPS/FOPS Canopy with Handrails/Guardrails, Floor Mat	✓		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)		✓	ELECTRICAL		
Sun/Debris Shields (Canopy)		✓	12 volt Electrical System	✓	
Cab Internal Roll-down Sun Screen (Cab)		✓	150 ampere Alternator	✓	
Rear View Camera with Color Touchscreen Display		✓	900 Cold-cranking Amps Battery Capacity	✓	
Sound Reduction Kit		✓	OTHER		
VIBRATORY SYSTEM			Product Link™	✓	
Smooth Drum	✓		Sight Gauges for Hydraulic Oil Level and Radiator Coolant Level	✓	
Dual Amplitude, Dual Frequency	✓		S.O.S SM Sampling Valves: Engine Oil, Hydraulic Oil and Coolant	✓	
Pod-Style Eccentric Weight Housings	✓		High Ambient Temperature Oil Factory Fill		✓
Auto-vibe Function	✓		Additional Rear View Mirror		✓
Rear Adjustable Steel Scraper	✓		Printer Port		✓
Padfoot Shell Kit (oval or square pads available)		✓	Seat Belt Switch		✓
Dual Adjustable Steel Scrapers		✓	Upgraded LED Light Package		✓
Dual Adjustable Polyurethane Scrapers		✓	Amber Rotating Beacon		✓
TECHNOLOGY SOLUTIONS			Flotation Tread or Lug Tread Tires		✓
Measure - Machine Drive Power and/or CMV		✓			
Map - SBAS GNSS Mapping		✓			
Connect - Cloud and Machine Connectivity		✓			

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