



Cat[®] CS7

Smooth Drum Vibratory Soil Compactor

The Cat[®] CS7 features a smooth drum and is ideally suited for granular soil applications or cohesive soil applications with the use of an optional padfoot shell kit.

Comfortable and Ergonomic Operator Station

- Features adjustable seat with integrated multifunction color LCD display and control console.
- The optional AM/FM radio has USB ports and Bluetooth[®] wireless technology enabled to connect your device and make hands-free calls.
- Low sound levels and vibration for greater operator comfort and productivity.

Safety at the Forefront

- Unobstructed view to the drum allows operator to see compaction path for proper overlap, verifying scraper efficiency, and watching for obstructions.
- A standard rear vision camera enhances visibility for more complete operator control and safety.
- High-visibility 3 inch (76 mm) seat belt makes it easier to visually confirm safe machine operation.
- Optional seat belt alert system allowing for coaching and monitoring of safe operation.

Exceptional Propel System

- Built around a dual pump propel system, two pumps provide separate dedicated flow to drum drive motor and rear axle motor for exceptional gradeability and traction in forward and reverse.

Virtually Maintenance Free

- Maintenance-free hitch bearings do not require greasing.
- Extended maintenance intervals for vibratory system and hydraulic system, providing more uptime and lower maintenance costs.

Powerful Cat C3.6 Engine

- Meets U.S. EPA Tier 4 Final and EU Stage V emissions standards.

Versatile Compaction Technologies

- Optional MicroVibe[™] compaction system offers ultra-low vibration ideal for working near high-sensitive areas or structures.
- Accelerometer-based (CMV) measurement technology available to help operator determine when compaction has been completed to specification for greater productivity and uniform compaction quality.



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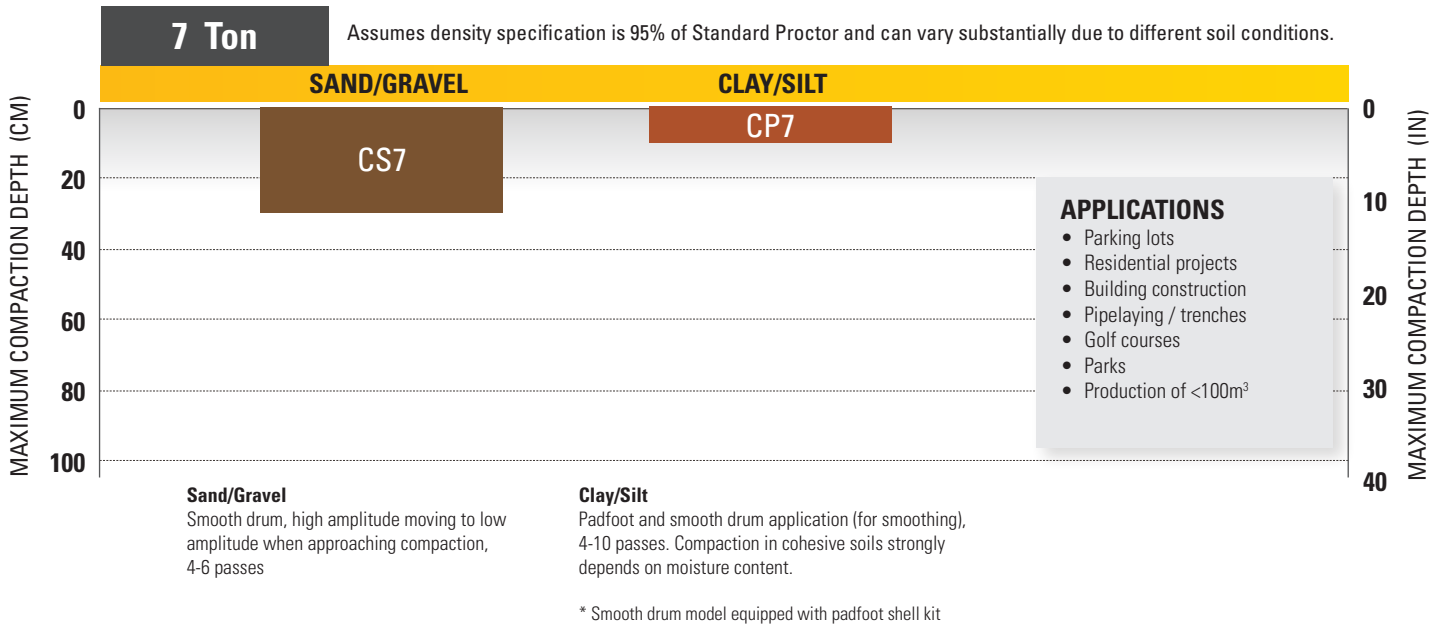
Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
OPERATOR ENVIRONMENT			POWERTRAIN		
ROPS/FOPS Canopy with Handrails, Floor Mat, Interior Rear View Mirror	✓		Cat® C3.6 Engine	✓	
Vinyl Adjustable Seat with Integrated Console and Multifunction Color LCD Display with Lockable Vandalism Guard	✓		Automatic Engine Idle Shutdown	✓	
Adjustable Tilting Steering Column with Integrated Cup Holders	✓		Air Cleaner, Dual Element	✓	
Rear Vision Camera System with Color Touchscreen Display	✓		Two-Speed Throttle Switch, Eco-mode	✓	
Dedicated Phone Holder	✓		Dual Propel Pumps; One for Drum Drive, One for Rear Axle	✓	
Seat Belt - 76 mm (3 in) High Visibility Orange	✓		Fuel Filter, Water Separator, Priming Pump, Water Indicator	✓	
12-volt Power Outlet	✓		Tilting Radiator/Hydraulic Oil Cooler	✓	
Horn, Backup Alarm	✓		Dual Braking System	✓	
ROPS/FOPS Cab with Climate Control, Cloth Seat, Exterior Rear View Mirrors, Sun Visor, Roll-down Sun Screen		✓	Two-speed Hydrostatic Transmission	✓	
AM/FM Radio with Bluetooth wireless technology, AUX Hub, USB Hub, and Microphone		✓	Transmission Guard		✓
VIBRATORY SYSTEM			TECHNOLOGY SOLUTIONS		
Smooth Drum	✓		Measure - Compaction Meter Value (CMV)		✓
Dual Amplitude, Single Frequency	✓		ELECTRICAL		
Pod-Style Eccentric Weight Housing	✓		12-volt Electrical System	✓	
Auto-vibe Function	✓		120 ampere Alternator	✓	
Front Adjustable Steel Scraper	✓		1000 Cold-cranking Amps Battery Capacity	✓	
Padfoot Shell Kit (oval or square pads available)		✓	OTHER		
Leveling Blade		✓	Product Link™	✓	
Variable Frequency		✓	Sight Gauges for Hydraulic Oil Level and Radiator Coolant Level	✓	
Dual Adjustable Steel Scrapers		✓	S•O•S SM Sampling Valves: Engine Oil, Hydraulic Oil, and Coolant	✓	
Dual Adjustable Polyurethane Scrapers		✓	Seat Belt Alert System		✓
MicroVibe™ Compaction System		✓	Upgraded LED Light Package		✓
			Amber Rotating Beacon		✓
			Factory-Filled Bio Hydraulic Oil		✓

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Vibratory Soil Compactor Selection Guide



Not all models are available in each region. Contact your Cat® dealer representative for more information.

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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 ISO 14396:2002	74.4 kW	99.8 hp
Gross Power SAE J1995:2014	74.4 kW	99.8 hp
Net Power ISO 9249:2007*	69.1 kW	92.7 hp
Net Power SAE J1349:2011*	68.4 kW	91.7 hp
Displacement	3.6 L	221 in ³
Stroke	120 mm	4.7 in
Bore	98.0 mm	3.9 in
Max. Travel Speed (Forward or Reverse)	11.0 km/h	6.8 mph

Weights**

Operating Weight w/ ROPS/FOPS Canopy	7179 kg	15,826 lb
w/ Padfoot Shell Kit	8258 kg	18,206 lb
w/ Padfoot Shell Kit and Leveling Blade	8690 kg	19,158 lb
Operating Weight w/ ROPS/FOPS Cab	7383 kg	16,276 lb
w/ Padfoot Shell Kit	8462 kg	18,656 lb
w/ Padfoot Shell Kit and Leveling Blade	8894 kg	19,608 lb
Weight at Drum w/ ROPS/FOPS Canopy	3420 kg	7540 lb
w/ Padfoot Shell Kit	4477 kg	9871 lb
w/ Padfoot Shell Kit and Leveling Blade	5056 kg	11,146 lb
Weight at Drum w/ ROPS/FOPS Cab	3490 kg	7694 lb
w/ Padfoot Shell Kit	4547 kg	10,025 lb
w/ Padfoot Shell Kit and Leveling Blade	5125 kg	11,300 lb

* 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.

** Standard operating weight considers full fluids, 75 kg operator, smooth drum, standard vibratory system, and cab with A/C.

Vibratory System Specifications

Static Linear Load*		
w/ ROPS/FOPS Canopy	20.4 kg/cm	114.2lbs/in
w/ ROPS/FOPS Cab	20.8 kg/cm	116.5 lbs/in
Frequency		
Standard	31.9 Hz	1915 vpm
During Eco-Mode Operation	29 Hz	1741 vpm
Optional Variable Frequency	23.3 - 31.9 Hz	1400-1915 vpm
Standard Nominal Amplitude @ 31.9 Hz (1915 vpm)		
High	1.67 mm	0.066 in
Low	0.84 mm	0.033 in
MicroVibe Amplitude @ 31.9 Hz (1915 vpm)		
High	1.05 mm	0.041 in
Low	0.18 mm	0.007 in
Standard Centrifugal Force @ 31.9 Hz (1915 vpm)		
Maximum	133.4 kN	29,989.7 lb
Minimum	67.0 kN	15,056.3 lb
MicroVibe Centrifugal Force @ 31.9 Hz (1915 vpm)		
Maximum	82.8 kN	18,609.7 lb
Minimum	14.5 kN	3257.7 lb

Service Refill Capacities

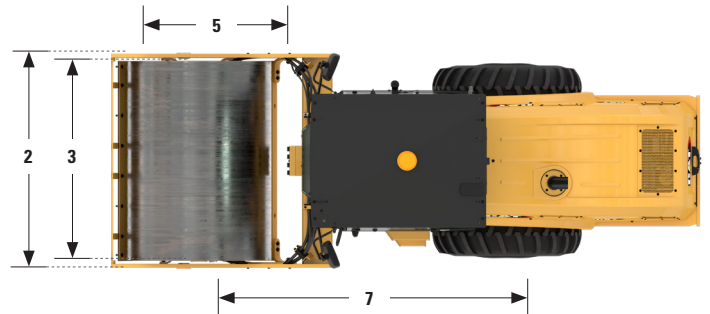
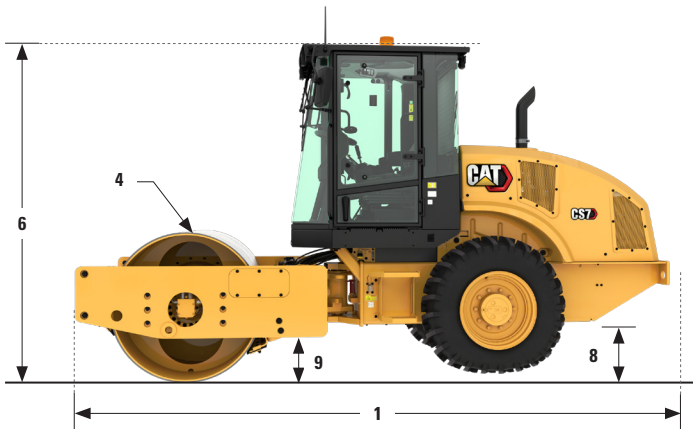
Fuel Tank, total capacity	140 L	37.0 gal
Diesel Exhaust Fluid Refill	11.5 L	3.0 gal
Cooling System	15.3 L	4.0 gal
Engine Oil w/ Filter	10.6 L	2.8 gal
Eccentric Weight Housing	13 L	3.4 gal
Axle and Final Drives	14.6 L	3.9 gal
Hydraulic Tank (service refill)	26 L	6.9 gal
Axle Gear Reducer	0.3 L	0.1 gal

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Technical Specifications

Dimensions			
1	Overall Length	5.1 m	16.7 ft
	Overall Length w/ optional Leveling Blade	5.6 m	18.4 ft
2	Overall Width	1.8 m	5.9 ft
	Overall Width w/ optional Leveling Blade	2.1 m	7.0 ft
3	Drum Width	1676 mm	66 in
4	Drum Shell Thickness	25 mm	1 in
5	Drum Diameter	1221 mm	48.1 in
	Overall Height		
	w/ ROPS/FOPS Canopy	2.8 m	9.2 ft
	w/ ROPS/FOPS Cab	2.9 m	9.4 ft
7	Wheelbase	2.6 m	8.5 ft
8	Ground Clearance	391 mm	15.4 in
9	Curb Clearance	369 mm	14.5 in
10	Optional Leveling Blade Height	583 mm	23.0 in
	Inside Turning Radius	3.1 m	10.0 ft
	Hitch Articulation Angle		37°
	Hitch Oscillation Angle		15°

Optional Padfoot Shell Kit Specifications			
Number of Pads		98	
Pad Height, oval pads		88.9 mm	3.5 in
Pad Face Area, oval pads		63.6 cm ²	9.9 in ²
Pad Height, optional square pads		81.3 mm	3.2 in
Pad Face Area, optional square pads		95.5 cm ²	14.8 in ²
Number of Chevrons		14	



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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.

ENGINE

- The Cat C3.6 is available in configurations that meet U.S. EPA Tier 4 Final and EU Stage V emissions 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 (hydrotreated 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.

* For use of blends higher than 20% biodiesel, consult your Cat dealer.
 ** Lower-carbon intensity fuels do not significantly reduce GHGs at the tailpipe.

AIR CONDITIONING SYSTEM

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 0.9 kg (1.98 lb) of refrigerant, which has a CO₂ equivalent of 1.287 metric tonnes (1.418 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:

Exterior Sound Power Level (ISO 6395:2008) – 106 dB(A)

With cooling fan speed at 70% of maximum value:

Operator Sound Pressure Level (ISO 6396:2008) – 90 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 compared to high idle
 - Optional compaction control reduces unnecessary passes, contributing to lower overall fuel consumption
 - Auto idle shutdown reduces unproductive hours and fuel burned
 - Extended maintenance intervals reduce fluid and filter consumption

RECYCLING

- The materials included in machines are categorized as below with approximate weight percentage. Because of variations of product configurations, the following values in the table may vary.

Material Type	Weight Percentage
Steel	79.76%
Iron	8.64%
Rubber	3.74%
Nonferrous Metal	1.91%
Plastic	1.63%
Other	1.46%
Fluid	1.38%
Uncategorized	0.73%
Mixed-Metal & Nonmetal	0.71%
Mixed Metal	0.04%
Mixed Nonmetallic	0.00%
Total	100%

- A machine with higher recyclability rate will ensure more efficient usage of valuable natural resources and enhance End-of-Life value of the product. According to ISO 16714:2008 (Earthmoving machinery – Recyclability and recoverability – Terminology and calculation method), recyclability rate is defined as percentage by mass (mass fraction in percent) of the new machine potentially able to be recycled, reused or both.

All parts in the bill of material are first evaluated by component type based on a list of components defined by the ISO 16714:2008 and Japan CEMA (Construction Equipment Manufacturers Association) standards. Remaining parts are further evaluated for recyclability based on material type.

Because of variations of product configurations, the following value in the table may vary.

Recyclability – 96%

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For more information on Cat products, dealer services, and industry solutions visit us on the web at www.cat.com.

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Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

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Build Number 03A
(N Am)

