



Cat[®] CS5

Smooth Drum Vibratory Soil Compactor

The Cat[®] CS5 smooth drum Vibratory Soil Compactors are ideally suited for residential and utility applications with granular soils. A durable propel system, narrow machine width and gradeability make it ideal for small compaction jobs or working in tight areas such as trenches or job sites with limited space.

Compact Size for Specific Applications

- With a narrow machine width of 1.4 m (4.6 ft), the CS5 is sized for working in trench applications or job sites with limited space.
- Ideal machine weight for light compaction of uniform layers over sewer and water pipes.
- The propel system allows the operator to stop, maintain machine position and change directions while on a grade.
- A narrow turning radius provides good maneuverability in confined work areas.

Comfortable and Ergonomic Operator Station

- A rear vision camera with a large color touchscreen display enhances visibility behind the machine, helping you work safely and confidently.
- The operator station has a multi-function LCD display and control console, an adjustable vinyl seat with a flip-up arm rest and a high-visibility retractable seat belt.
- View operational gauges and basic diagnostics on the integrated LCD screen.
- The propel lever is conveniently located to the right of the operator's seat and provides vibratory ON/OFF control for low-effort operation.
- Designed for optimal visibility from the operator station.
- The operator platform is isolated with heavy-duty rubber mounts to reduce machine vibration transmitted to the operator.

Designed for Performance

- Powered by a quiet, fuel-efficient Cat[®] C2.8 engine that meets U.S. EPA Tier 4 Final emission standards. Caterpillar's exclusive Intelligent Power Management system monitors operator input and available power to keep the machine working at peak efficiency.
- Built around a dual pump propel system, with two pumps providing separate dedicated flow to the drum drive motor and rear axle motor for excellent gradeability and traction in forward and reverse.
- The limited-slip differential provides steady power by transferring torque to the tires for enhanced traction on soft, slippery surfaces.
- A variable propel speed range up to 8.8 km/h (5.5 mph) helps deliver maximum torque when climbing grades, plus the ability to move quickly around the jobsite.

Durable, Field-Proven Vibratory System

- The drum uses a reliable swinging eccentric weight design engineered to deliver high compactive effort and performance you can count on.
- A vibratory frequency of 35.8 Hz (2150 vpm) combined with optimal drum weight, enables the operator to achieve density in fewer passes.
- The large heavy-duty bearings for the eccentric weight shaft are designed for high compactive forces.
- Heavy-duty isolation mounts in the drum allow more force to be transmitted to the ground and less vibration to the drum yoke.



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Reliability and Serviceability

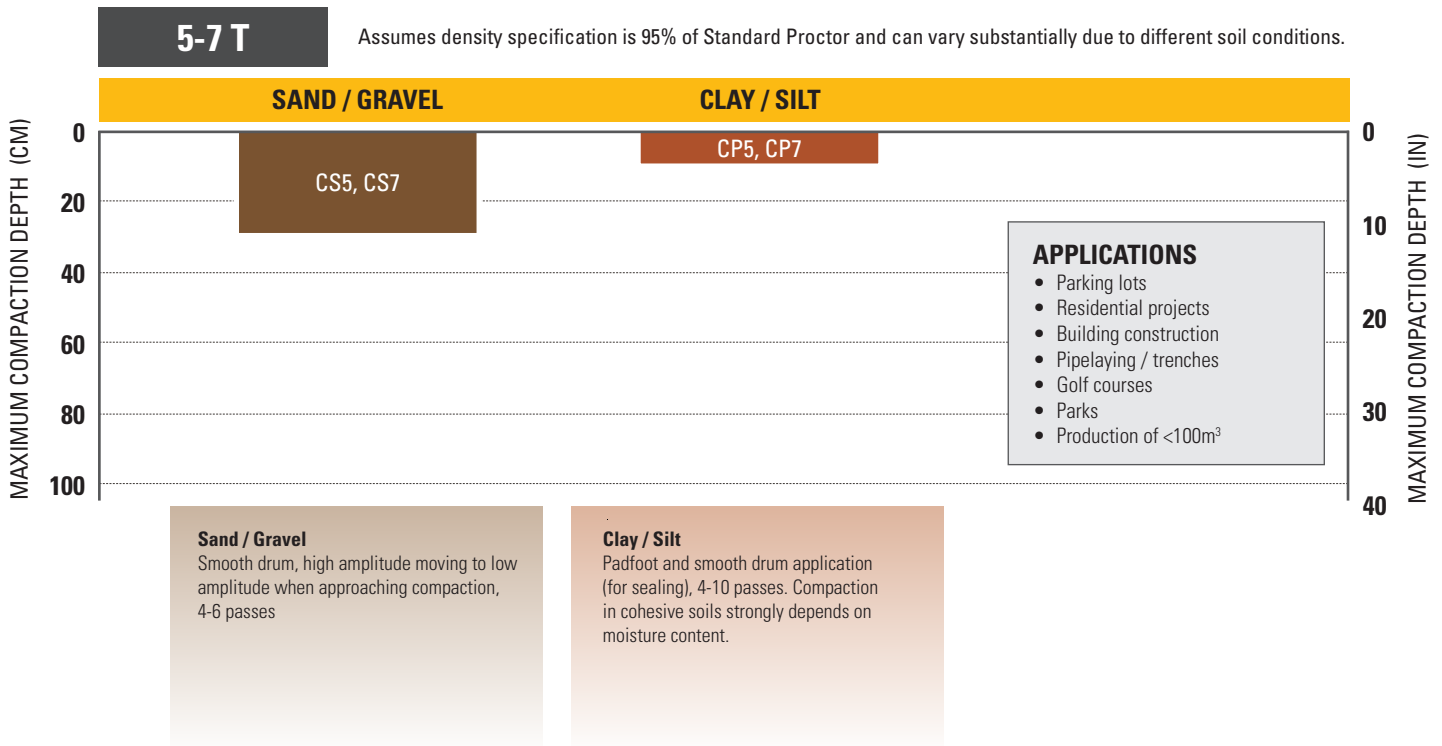
- Large doors provide ground-level accessibility to perform service and check engine oil, hydraulic fluid and coolant levels.
- The operator platform tilts forward to conveniently reach the hydraulic pumps. The hydraulic oil cooler tilts rearward for additional access to the radiator.
- A rear-mounted cooling system provides easy access for cleaning.
- Monitor fluid conditions with regular sampling to help extend change intervals up to 500 hours engine oil, 1000 hours eccentric weight housing oil, 3000 hours hydraulic oil, and 12000 hours coolant.
- Quick-connect hydraulic test ports simplify system diagnostics.
- Ecology drains provide an environmental method to drain fluids on the radiator, engine oil pan, hydraulic and fuel tank.
- Hoses and electrical harnesses are routed and clamped for increased long-term durability.

- Electrical system wiring is color-coded and numbered for easy identification and wrapped in a protective, abrasion-resistant nylon braid for longer life and reliability.
- Maintenance-free Cat batteries are mounted in the rear of the machine and are accessible through the swing-out rear grill. Cat batteries are specifically designed for maximum cranking power and protection against vibration.
- VisionLink™ takes the guesswork out of managing your entire fleet—regardless of size or equipment manufacturer.* The CS5 tracks maintenance needs, machine hours and location, through interactive dashboards on your mobile device or desktop, helping you make informed decisions that lower costs, simplify maintenance, and improve safety and security on your jobsite.

**Data field availability can vary by equipment manufacturer and is provided through an application programming interface (API).*

Vibratory Soil Compactor Selection Guide

This chart helps you select which model is best suited for your work. Not all models listed are available in each region. Contact your Cat dealer representative for more information.



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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, Anti-skid Platform, Footrest	✓		Cat® C2.8 Engine	✓	
Vinyl Non-suspension Seat	✓		Air Cleaner, Dual Element	✓	
LCD Display with Lockable Vandalism Guard	✓		Two-Speed Throttle Switch	✓	
Rear Vision Camera System with Color Touchscreen Display	✓		Dual Propel Pumps; One for Drum Drive, One for Rear Axle	✓	
High Visibility 76 mm (3 in) Seat Belt	✓		Fuel Filter, Water Separator, Priming Pump, Water Indicator	✓	
12-Volt Power Outlet	✓		Radiator/Hydraulic Oil Cooler	✓	
Horn, Backup Alarm	✓		Dual Braking System	✓	
VIBRATORY SYSTEM			Single-Speed Hydrostatic Transmission	✓	
Smooth Drum	✓		Limited Slip Differential	✓	
Single Amplitude, Single Frequency	✓		OTHER		
Adjustable Steel Scraper	✓		Lockable Engine Enclosure, Hydraulic and Fuel Tanks	✓	
ELECTRICAL			Sight Gauges for Hydraulic Oil Level and Radiator Coolant Level	✓	
12-Volt Electrical System	✓		Scheduled Oil Sampling (S•O•S SM) Ports: Engine Oil, Hydraulic Oil, and Coolant	✓	
85-Amp Alternator	✓		LED Working Lights (4)	✓	
600 Cold-cranking Amps Battery Capacity	✓		Amber Rotating Beacon		✓
CAT® TECHNOLOGY					
VisionLink™	✓				

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Technical Specifications

Engine and Powertrain

Engine Model	Cat C2.8	
Meets U.S. EPA Tier 4 Final emission standards.		
Engine Power @ 2,400 rpm – ISO 14396	55.4 kW	74.3 hp
Gross Power @ 2,400 rpm – SAE J1995	56.5 kW	75.8 hp
Net Power @ 2,400 rpm – ISO 9249	53.7 kW	72.0 hp
Net Power @ 2,400 rpm – SAE J1349	53.7 kW	72.0 hp
Number of Cylinders	4	
Displacement	2.8 L	171 in ³
Stroke	110 mm	4.3 in
Bore	90 mm	3.5 in
Build Number	04A	
Maximum Travel Speed (Forward or Reverse)	8.8 km/h	5.5 mph
Theoretical Gradeability, no vibration	50%	

- *Advertised power is tested per the specified standard in effect at the time of manufacture.*
- *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.*
- *Actual gradeability may vary based on site conditions and machine configuration. Refer to the Operation and Maintenance Manual for more information.*

Vibratory System

Frequency	35.8 Hz	2150 vpm
Nominal Amplitude @ 30.5 Hz (1830 vpm)	1.3 mm	0.051 in
Centrifugal Force @ 30.5 Hz (1830 vpm)	78 kN	17,535 lbF
VM Class	VM0	
Static Linear Load	16.1 kg/cm	90.2 lbs/in

Weights

Operating Weight		
ROPS/FOPS Canopy	4570 kg	10,075 lb
Weight at Drum		
ROPS/FOPS Canopy	2100 kg	4625 lb

Operating weights are approximate and consider full fluids and 80 kg (176 lb) operator.

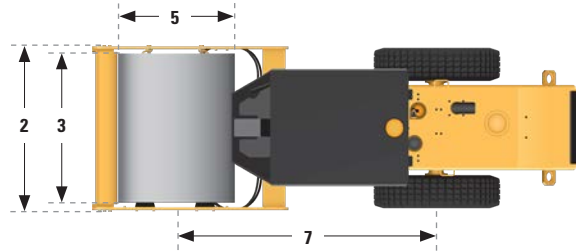
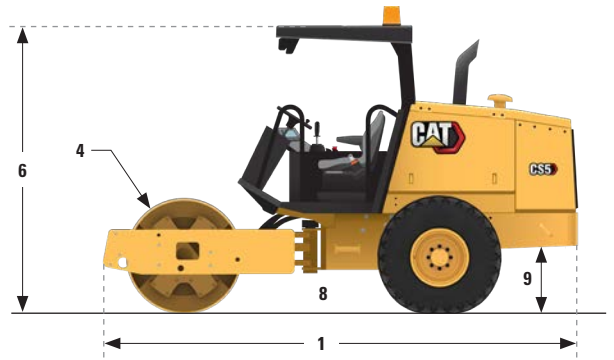
Service Refill Capacities

Fuel Tank	113 L	29.9 gal
Cooling System	15.7 L	4.1 gal
Engine Oil with Filter	8.2 L	2.2 gal
Eccentric Weight Housings (combined)	53 L	14 gal
Axle and Final Drives	7.1 L	1.9 gal
Hydraulic Tank	35.6 L	9.4 gal

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Dimensions

1	Overall Length	4155 mm	164 in
2	Overall Width	1393 mm	55 in
3	Drum Width	1270 mm	50 in
4	Drum Shell Thickness	20 mm	0.8 in
5	Drum Diameter	1016 mm	40 in
6	Overall Height	2525 mm	99 in
7	Wheelbase	2240 mm	88 in
8	Ground Clearance	348 mm	13.7 in
9	Curb Clearance	344 mm	13.5 in
	Inside Turning Radius	2625 mm	103 in
	Hitch Articulation Angle	38°	
	Hitch Oscillation Angle	15°	



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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 C2.8 is available in configurations that meet U.S. EPA Tier 4 Final emission standards.
- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) and are compatible* with 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.

* While Caterpillar engines are compatible with these alternative fuels, some regions may not allow their use.

** Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.

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 < 100 ppm
 - Cadmium < 1 ppm
 - Chromium < 5 ppm
 - Lead < 5 ppm

SOUND PERFORMANCE

ISO 6395:2008 (external) – 103 dB(A)

ISO 6396:2008 (non-cab) – 92 dB(A)

- External Sound – The spectator sound power level is measured according to the test procedures and conditions specified in ISO 6395:2008 for a Caterpillar machine that is properly equipped and maintained. The measurements were conducted at 100% of the maximum engine cooling fan speed.
- Non-cab Sound – The operator sound pressure level is measured according to the test procedures and conditions specified in ISO 6396:2008 for an open operator station offered by Caterpillar. The measurements were conducted at 100% of the maximum engine cooling fan speed.
- Hearing protection may be needed when operating with an open operator station for extended periods or in noisy environment(s).

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.

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	76.07%
Iron	12.20%
Fluid	3.34%
Nonferrous Metal	2.86%
Rubber	2.32%
Plastic	1.06%
Uncategorized	0.97%
Mixed-Metal & Nonmetal	0.81%
Other	0.28%
Mixed Metal	0.10%
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 – 97%

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QEHQ3323 (02-2026)
Build Number: 04A
(N Am)

For more complete 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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