Cat® CS5

Smooth Drum Vibratory Soil Compactor

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

Propel System

- Powered by a Cat® C3.4B engine that meets U.S. EPA Tier 4 Final emission standards.
- Built around a dual pump propel system, two pumps provide separate dedicated flow to the drum drive motor and rear axle motor for exceptional gradeability and traction in forward and reverse.
- The limited slip differential provides balanced tractive effort and smooth torque transfer to both rear wheels.
- The CS34 has infinitely variable speed range for maximum torque when grade climbing, plus the ability to move quickly over longer distances.
- High travel speed up to 8.8 km/h (5.5 mph).

Vibratory System

- High centrifugal force and amplitude provides superior compactive effort and exceptional productivity.
- 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 weight shaft are designed for high compactive forces.
- Heavy-duty isolation mounts allow more force to be transmitted to the ground and less vibration to the drum yoke.

Comfortable and Ergonomic Operator Station

- A rear vision camera with large color touchscreen display enhances visibility for more complete operator control and safety.
- The adjustable operator's seat has an integrated multi-function LCD display and control console, flip-up arm rests and a 76 mm (3 in) wide retractable seat belt.
- Operational gauges and basic diagnostics are displayed on the integrated LCD screen.
- An easy to reach propel lever is located to the right of the operator's seat for convenient and accurate machine control.
- Single lever control for propel and vibratory ON/OFF provides simple, low-effort operation.
- Outstanding visibility to the front and rear of machine.
- Low sound levels and vibration for greater operator comfort and productivity.
- The operator's station is isolated with heavy-duty rubber mounts to reduce machine vibration transmitted to the operator.

Compact Size for Specific Applications

- The narrow machine width of 1.4 m (4.6 ft) is ideal for working in trench applications or job sites with limited space.
- The machine weight is good 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 short turning radius provides good maneuverability in confined work areas.

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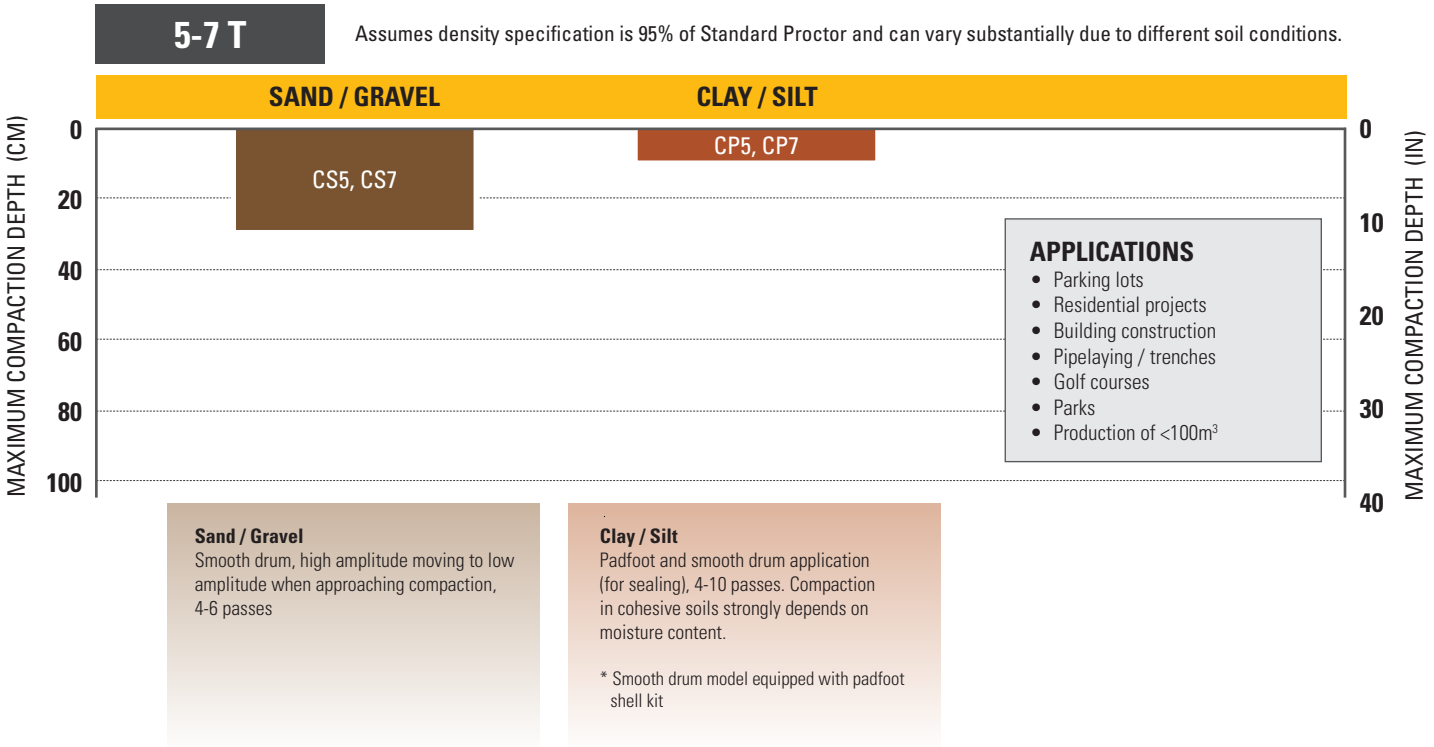
Reliability and Serviceability

- Visual indicators allow easy check of radiator coolant, hydraulic oil tank level and air restriction indicator.
- The operator's station and platform tilts forward to allow convenient access to the hydraulic pumps.
- 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 housing, 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.
- Secure hose routing with polyethylene blocks reduce rubbing and extend service life.
- Nylon braided wrap and all-weather connectors ensure electrical system integrity. Electrical wiring is color-coded, numbered and labeled with component identifiers to simplify troubleshooting.
- Maintenance-free Cat batteries are mounted in the rear of the machine are accessible through the swing out rear grill. Cat batteries are specifically designed for maximum cranking power and protection against vibration.

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.



Standard and Optional Equipment

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

	Standard	Optional
OPERATOR ENVIRONMENT		
ROPS/FOPS Canopy with Handrails, Floor Mat, Vinyl Seat	✓	
Adjustable Seat with Integrated Console	✓	
LCD Display with Lockable Vandalism Guard	✓	
Rear Vision Camera System with Color Touchscreen Display	✓	
76 mm (3 in) Seat Belt	✓	
12-volt Power Outlet	✓	
Horn, Backup Alarm	✓	
VIBRATORY SYSTEM		
Smooth Drum	✓	
Single Amplitude, Single Frequency	✓	
Single Adjustable Steel Scraper	✓	
ELECTRICAL		
12 volt Electrical System	✓	
120 ampere Alternator	✓	
600 Cold-cranking Amps Battery Capacity	✓	

	Standard	Optional
POWERTRAIN		
Cat® C3.4B Engine	✓	
Air Cleaner, Dual Element	✓	
Two-Speed Throttle Switch	✓	
Dual Propel Pumps; One for Drum Drive, One for Rear Axle	✓	
Fuel Filter, Water Separator, Priming Pump, Water Indicator	✓	
Radiator/Hydraulic Oil Cooler	✓	
Dual Braking System	✓	
Single-Speed Hydrostatic Transmission	✓	
Limited Slip Differential	✓	
OTHER		
Lockable Engine Enclosure, Hydraulic and Fuel Tanks	✓	
Sight Gauges for Hydraulic Oil Level and Radiator Coolant Level	✓	
S•O•S℠ Sampling Values: Engine Oil, Hydraulic Oil, and Coolant	✓	
Halogen Working Lights (4)	✓	
Amber Rotating Beacon		✓

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Technical Specifications

Engine and Powertrain		
Engine Model	C3.4B	
Emissions	U.S. EPA Tier 4 Final	
Engine Power – ISO 14396:2002	55.5 kW	74.4 hp
Gross Power – SAE J1995:2014	55.6 kW	74.6 hp
Net Power – ISO 9249:2014*	50.9 kW	68.3 hp
Net Power – SAE J1349:2011*	50.3 kW	67.5 hp
Number of Cylinders	4	
Displacement	3.4 L	207.5 in^3
Stroke	110 mm	4.3 in
Bore	99 mm	3.9 in
Max. Travel Speed (Forward or Reverse)	8.8 km/h	5.5 mph

** 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.*

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 lb
VM Class at High Amplitude (Cab Configuration)	VM0	
Static Linear Load	16.1 kg/cm	90.2 lbs/in

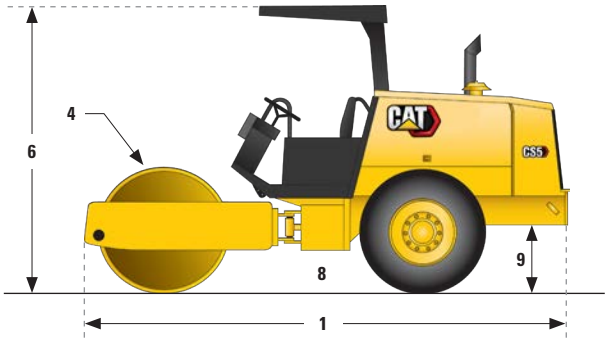
Weights		
Operating Weight		
ROPS/FOPS Canopy	4445 kg	9800 lb
Weight at Drum		
ROPS/FOPS Canopy	2040 kg	4497 lb

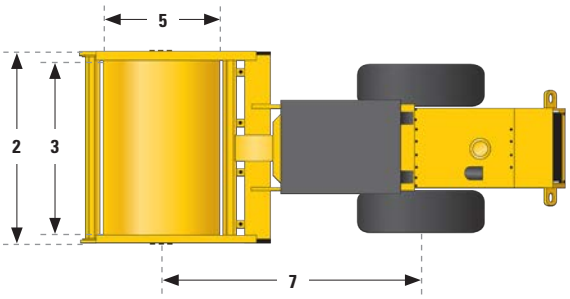
Operating weights are approximate and consider full fluids and 80 kg (176 lb) operator.

Service Refill Capacities		
Fuel Tank	113 L	29.9 gal
Cooling System	18.3 L	4.8 gal
Engine Oil with Filter	9 L	2.4 gal
Eccentric Weight Housings (combined)	53 L	14 gal
Axle and Final Drives	7.1 L	1.9 gal
Hydraulic Tank	40 L	10.6 gal

Technical Specifications

Dimensions			
1	Overall Length	4.2 m	13.6 ft
2	Overall Width	1.4 m	4.6 ft
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	2.5 m	8.3 ft
7	Wheelbase	2.2 m	7.3 ft
8	Ground Clearance	348 mm	13.7 in
9	Curb Clearance	344 mm	13.5 in
	Inside Turning Radius	2.6 m	8.6 ft
	Hitch Articulation Angle	38°	
	Hitch Oscillation Angle	15°	





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 C3.4B 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) 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.

**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 < 0.01%
  – Cadmium < 0.01%
  – Chromium < 0.01%
  – Lead < 0.01%

SOUND PERFORMANCE

With cooling fan speed at maximum value:

Operator Sound Pressure Level (ISO 6396:2008) – 94.4 dB(A)

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

- The operator sound pressure level is measured according to the test procedures and conditions specified in ISO 6396:2008. The measurements were conducted at 100% of the maximum engine cooling fan speed.
- The exterior sound power level is measured according to the test procedures and conditions specified in ISO 6395:2008. 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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QEHQ3085 (01-2024)
Build Number: 01A
(N Am)

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