



# Cat<sup>®</sup> CS76B

## *Smooth Drum Vibratory Soil Compactor*

***The Cat<sup>®</sup> CS76B 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 pivoting seat with integrated multifunction LCD display and control console.
- Outstanding visibility to the front and rear of machine.
- Low sound levels and vibration for greater operator comfort and productivity.

### **Rear Vision Camera**

- The rear vision camera enhances visibility for more complete operator control and safety.

### **Exceptional Propel System**

- Built around the exclusive Cat<sup>®</sup> 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.
- Electronic propel control provides more precise machine control.

### **Virtually Maintenance Free**

- Maintenance-free hitch bearings.
- Extended maintenance intervals for vibratory system and hydraulic system, providing more uptime and lower maintenance costs.

### **Enhanced Compaction Performance**

- More weight at the drum and greater amplitude.
- Automated speed control and vibratory system functions make it easy to ensure consistent, high quality compaction.

### **Technologies that Enhance Quality and Productivity**

- Exclusive semi-autonomous Command for Compaction technology automates compaction to offer complete process control and help promote more uniform results.
- Measurement and documentation technologies help the operator determine when compaction has been completed to specification for greater productivity and uniform compaction quality.
- Accelerometer-based (CMV) and exclusive Machine Drive Power (MDP) measurement technologies available.



# Cat® CS76B Smooth Drum Vibratory Soil Compactor

## Technical Specifications

Engine - Power Train		
Engine Model	Cat® C4.4	
European Emissions	EU Stage V	
Gross Power ISO 14396	129.4 kW	173.5 hp
Gross Power SAE J1995	130.4 kW	174.9 hp
Net Power ISO 9249*	108.7 kW	145.8 hp
Net Power SAE J1349*	108.2 kW	145.1 hp
Displacement	4.4 L	268.5 in <sup>3</sup>
Stroke	127 mm	5 in
Bore	105 mm	4.1 in
Max. Travel Speed (Forward or Reverse)	11.4 km/h	7 mph
Theoretical Gradeability, no vibration**	56%	

Vibratory System Specifications		
Frequency		
Standard	28 Hz	1680 vpm
During Eco-mode Operation	25.5 Hz	1527 vpm
Optional Variable Frequency	23.3-28 Hz	1400-1680 vpm
Nominal Amplitude @ 28 Hz (1680 vpm)		
High	2.1 mm	0.083 in
Low	0.98 mm	0.039 in
Centrifugal Force @ 28 Hz (1680 vpm)		
Maximum	335 kN	75,234 lb
Minimum	156 kN	35,153 lb
Static Linear Load		
w/ ROPS/FOPS cab	56.5 kg/cm	316.4 lbs/in
VM Class at High Amplitude		VM5

Weights		
Operating Weight w/ ROPS/FOPS cab***	17 420 kg	38,405 lb
w/ Oval Padfoot Shell Kit	19 298 kg	42,545 lb
w/ Square Padfoot Shell Kit	19 457 kg	42,895 lb
Weight at Drum w/ ROPS/FOPS cab	12 047 kg	26,559 lb
w/ Oval Padfoot Shell Kit	13 926 kg	30,702 lb
w/ Square Padfoot Shell Kit	14 085 kg	31,052 lb

Service Refill Capacities		
Fuel Tank, total capacity	332 L	88 gal
Diesel Exhaust Fuel refill capacity	19 L	5 gal
Cooling System	28.2 L	7.5 gal
Engine Oil w/ Filter	11.6 L	3.1 gal
Eccentric Weight Housings (combined)	26 L	6.9 gal
Axle and Final Drives	18 L	4.8 gal
Hydraulic Tank (service refill)	50 L	13.2 gal

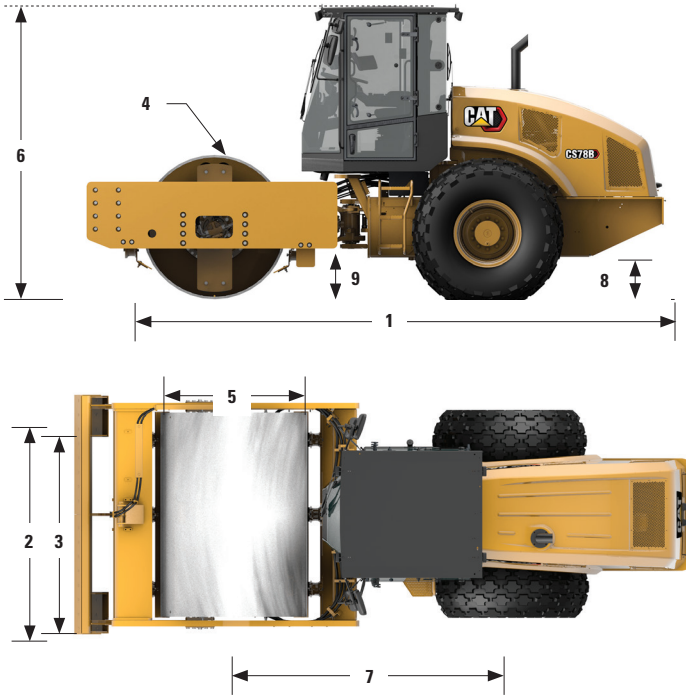
\* Net power advertised is the power available at the engine flywheel when equipped with a fan at maximum speed, air cleaner, clean emissions module, and alternator.

\*\* Actual gradeability may vary based on site conditions and machine configuration. Refer to the Operation and Maintenance Manual for more information.

\*\*\* Standard operating weight considers full fuel tank, 75 kg operator, flotation tires, smooth drum, and cab with A/C.

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 0.8 kg of refrigerant which has a CO<sub>2</sub> equivalent 1.144 metric tonne.

# Cat® CS76B Smooth Drum Vibratory Soil Compactor



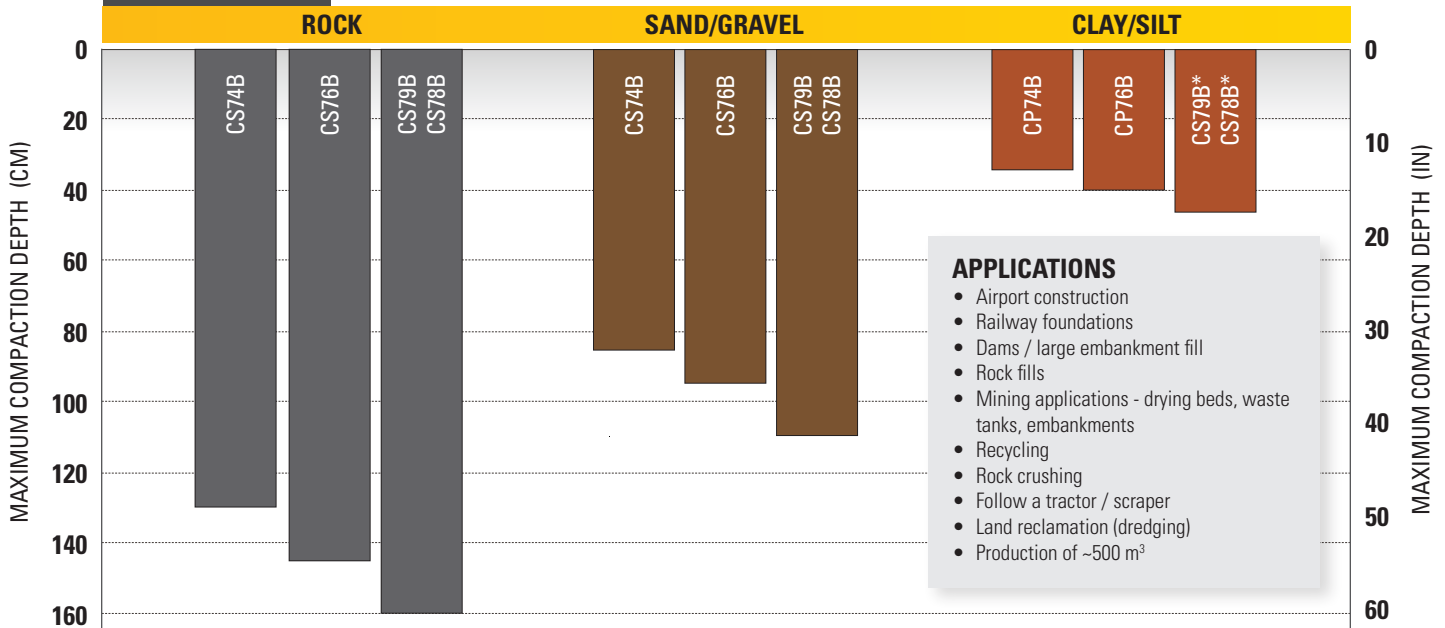
Dimensions			
1	Overall Length	6.1 m	20.1 ft
2	Overall Width	2.4 m	7.8 ft
3	Drum Width	2134 mm	84 in
4	Drum Shell Thickness	40 mm	1.6 in
5	Drum Diameter	1535 mm	60.4 in
6	Overall Height	3.1 m	10.1 ft
7	Wheelbase	2.9 m	9.5 ft
8	Ground Clearance	434 mm	17.1 in
9	Curb Clearance	526 mm	20.7 in
	Inside Turning Radius	3.7 m	12.1 ft
	Hitch Articulation Angle	34°	
	Hitch Oscillation Angle	15°	

Optional Padfoot Shell Kit Specifications			
	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	105.7 cm <sup>2</sup>	16.4 in <sup>2</sup>
	Number of Chevrons	16	

## Vibratory Soil Compactor Selection Guide

16 - 20 T

Assumes density specification is 95% of Standard Proctor and can vary substantially due to different soil conditions.



### APPLICATIONS

- Airport construction
- Railway foundations
- Dams / large embankment fill
- Rock fills
- Mining applications - drying beds, waste tanks, embankments
- Recycling
- Rock crushing
- Follow a tractor / scraper
- Land reclamation (dredging)
- Production of ~500 m<sup>3</sup>

**Rock**  
Smooth drum, high amplitude (2.1 mm, 0.083 in) moving to low amplitude when approaching compaction, 4-8 passes

**Sand/Gravel**  
Smooth drum, high amplitude (2.1 mm, 0.083 in) moving to low amplitude when approaching compaction, 4-6 passes

**Clay/Silt**  
Padfoot and smooth drum application (for smoothing), 4-10 passes. Compaction in cohesive soils strongly depends on moisture content.

Size: Less than 50 mm (2 in) diameter

\* Smooth drum model equipped with padfoot shell kit

# Cat® CS76B Smooth Drum Vibratory Soil Compactor

## 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>POWER TRAIN</b>		
ROPS/FOPS Cab with Climate Control, External Rear View Mirrors	✓		Cat C4.4 Diesel Engine	✓	
Cloth Adjustable Pivoting Seat with Integrated Console and LCD Display	✓		Air Cleaner, Dual Element	✓	
Adjustable Tilting Steering Column with Integrated Cup Holders	✓		Three-Speed Throttle Switch, Eco-mode and Automatic Speed Control	✓	
Rear Vision Camera with Color Touchscreen Display	✓		Dual Propel Pumps; One for Drum Drive, One for Rear Axle	✓	
High Visibility Orange 50 mm (2 in) Seat Belt	✓		Fuel Filter, Water Separator, Priming Pump, Water Indicator	✓	
12-volt Power Outlet	✓		Tilting Radiator/Hydraulic Oil Cooler	✓	
Horn, Backup Alarm	✓		Dual Braking System	✓	
Internal Rear View Mirror		✓	Two-speed Hydrostatic Transmission	✓	
Sun Visor		✓	Transmission Guard		✓
Cab Internal Roll-down Sun Screen		✓	<b>ELECTRICAL</b>		
High Visibility Orange 76 mm (3 in) Seat Belt		✓	24 volt Electrical System	✓	
<b>VIBRATORY SYSTEM</b>			100 ampere Alternator	✓	
Smooth Drum	✓		750 Cold-cranking Amps Battery Capacity	✓	
Dual Amplitude, Single Frequency	✓		<b>OTHER</b>		
Dual Pod-Style Eccentric Weight Housings	✓		Product Link™	✓	
Auto-vibe Function	✓		Sight Gauges for Hydraulic Oil Level and Radiator Coolant Level	✓	
Front Adjustable Steel Scraper	✓		S-O-S <sup>SM</sup> Sampling Valves: Engine Oil, Hydraulic Oil and Coolant	✓	
Padfoot Shell Kit (oval or square pads available)		✓	Machine tie downs - front and rear (meet ISO 15818)	✓	
Variable Frequency		✓	Recording Module		✓
Dual Adjustable Steel Scrapers		✓	Factory Filled Bio Hydraulic Oil		✓
Dual Adjustable Polyurethane Scrapers		✓	Fast Fill Fuel Tank		✓
<b>TECHNOLOGY SOLUTIONS</b>			Upgraded Halogen Light Package		✓
Measure - Machine Drive Power and/or CMV		✓	Upgraded LED Light Package		✓
Map - SBAS GNSS Mapping		✓	Amber Rotating Beacon		✓
Connect - Cloud and Machine Connectivity		✓	Fuel Fill Access Door		✓
Command for Compaction		✓			

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at [www.cat.com](http://www.cat.com)

© 2021 Caterpillar All rights reserved

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

CAT, CATERPILLAR, LET'S DO THE WORK, their respective logos, "Caterpillar Corporate Yellow," the "Power Edge" and Cat "Modern Hex" trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

VisionLink is a trademark of Trimble Navigation Limited, registered in the United States and in other countries.

QEHO2875 (06-2021)  
Europe

