



Cat[®] CS74B

Smooth Drum Vibratory Soil Compactor

The Cat[®] CS74B 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[®] 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® CS74B 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 ³
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**	59%	

Weights

Operating Weight w/ ROPS/FOPS cab***	15 999 kg	35,272 lb
w/ Leveling Blade	16 684 kg	36,782 lb
w/ Oval Padfoot Shell Kit	17 883 kg	39,425 lb
w/ Oval Padfoot Shell Kit and Leveling Blade	18 568 kg	40,935 lb
w/ Square Padfoot Shell Kit	18 042 kg	39,776 lb
w/ Square Padfoot Shell Kit and Leveling Blade	18 727 kg	41,286 lb
Weight at Drum w/ ROPS/FOPS cab	10 423 kg	22,979 lb
w/ Leveling Blade	11 399 kg	25,130 lb
w/ Oval Padfoot Shell Kit	12 310 kg	27,139 lb
w/ Oval Padfoot Shell Kit and Leveling Blade	13 286 kg	29,291 lb
w/ Square Padfoot Shell Kit	12 469 kg	27,489 lb
w/ Square Padfoot Shell Kit and Leveling Blade	13 445 kg	29,641 lb

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	48.8 kg/cm	273.3 lbs/in
VM Class at High Amplitude	VM5	

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

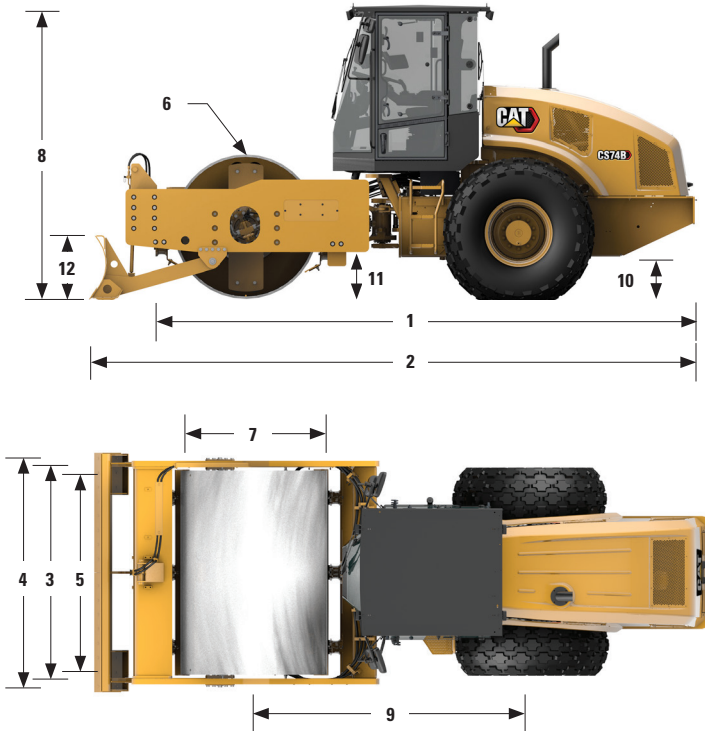
* Net power advertised is the power available at the engine flywheel when equipped with a fan at maximum speed, air cleaner, clean emissions module, and alternator.

** 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 CO₂ equivalent 1.144 metric tonne.

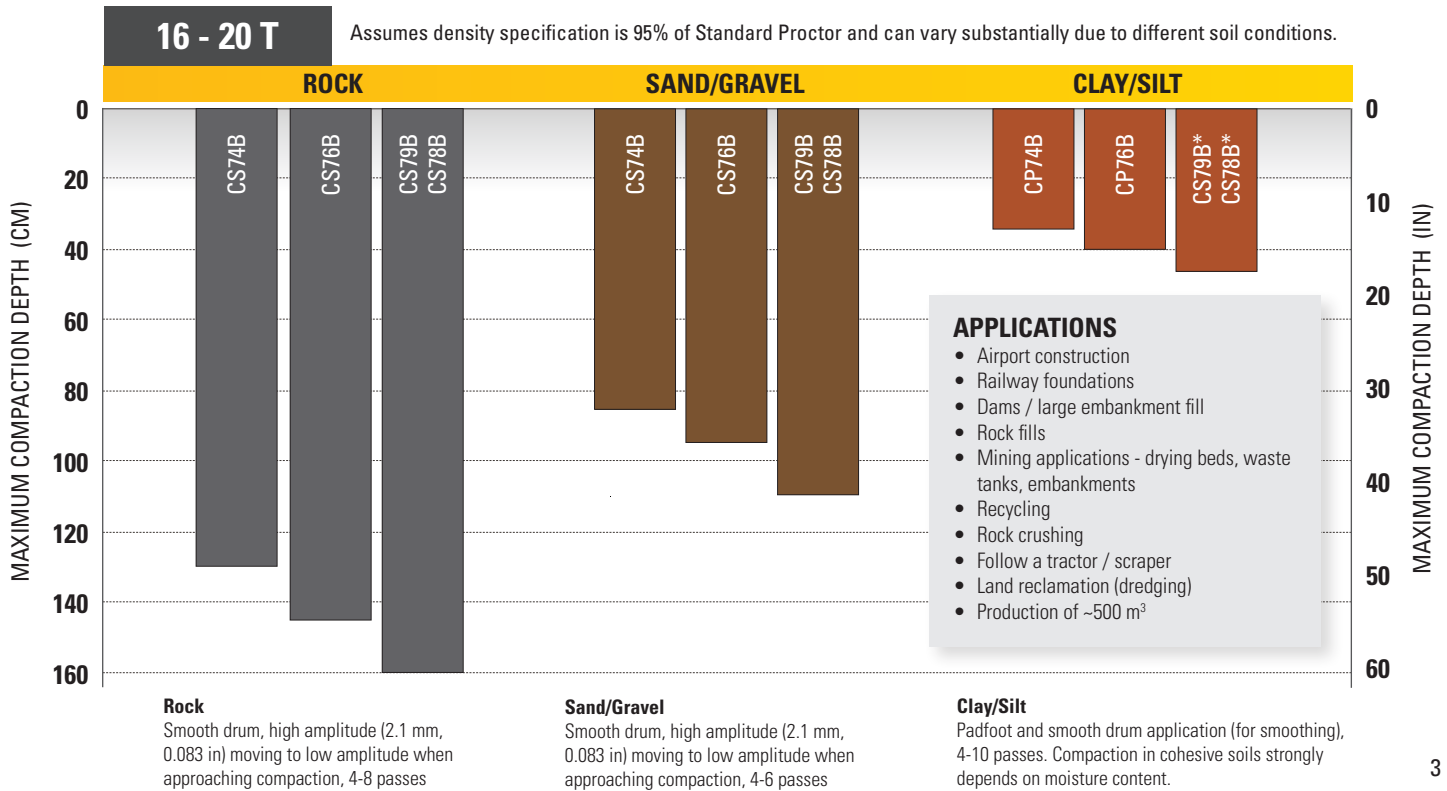
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Dimensions			
1	Overall Length	6.1 m	19.9 ft
2	Overall Length w/ optional Leveling Blade	6.6 m	21.5 ft
3	Overall Width	2.3 m	7.7 ft
4	Overall Width w/ optional Leveling Blade	2.5 m	8.2 ft
5	Drum Width	2134 mm	84 in
6	Drum Shell Thickness	40 mm	1.6 in
7	Drum Diameter	1535 mm	60.4 in
8	Overall Height	3.1 m	10.1 ft
9	Wheelbase	2.9 m	9.5 ft
10	Ground Clearance	434 mm	17.1 in
11	Curb Clearance	489 mm	19.3 in
12	Optional Leveling Blade Height	688 mm	27.1 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 ²	9.8 in ²	
Pad Height, square pads	89.8 mm	3.5 in	
Pad Face Area, square pads	105.7 cm ²	16.4 in ²	
Number of Chevrons	16		

Vibratory Soil Compactor Selection Guide



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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 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		✓	ELECTRICAL		
High Visibility Orange 76 mm (3 in) Seat Belt		✓	24 volt Electrical System	✓	
VIBRATORY SYSTEM			100 ampere Alternator	✓	
Smooth Drum	✓		750 Cold-cranking Amps Battery Capacity	✓	
Dual Amplitude, Single Frequency	✓		OTHER		
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 SM 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)	✓	
Leveling Blade		✓	Recording Module		✓
Variable Frequency		✓	Factory Filled Bio Hydraulic Oil		✓
Dual Adjustable Steel Scrapers		✓	Fast Fill Fuel Tank		✓
Dual Adjustable Polyurethane Scrapers		✓	Upgraded Halogen Light Package		✓
TECHNOLOGY SOLUTIONS			Upgraded LED light package		✓
Measure - Machine Drive Power and/or CMV		✓	Amber Rotating Beacon		✓
Map - SBAS GNSS Mapping		✓	Fuel Fill Access Door		✓
Connect - Cloud and Machine Connectivity		✓	Italian Road Homologation (IRH)		✓
Command for Compaction		✓			

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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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