

# **CAT<sup>®</sup> SINGLE DRUM VIBRATORY SOIL COMPACTORS**

7-20 METRIC TON (7.7-22 U.S. TON)

CAT

**BUILT FOR IT.**<sup>\*</sup>

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#### MODELS >

CS/CP44B CS/CP54B CS/CP56B CS66B<sup>2</sup> CS66B<sup>2</sup> CS/CP68B CS/CP74B CS76B<sup>2</sup> CS78B CS79B<sup>1</sup>





# **UNDERNEATH IT ALL**

**CONFIDENCE.** Leveraging our vast experience in the earth moving industry, Caterpillar has produced a line of vibratory soil compactors that provide contractors around the world with the confidence to know that the base they build will support their project.

**VERSATILITY.** A machine needs to work to earn its keep. Cat Vibratory Soil Compactors are well equipped to perform a wide range of applications. Options like padfoot shell kits, leveling blades and Cat Compaction Control add capability, making your Cat Vibratory Soil Compactor the machine of choice no matter what the application requires.

**PRODUCTIVITY.** Cat Vibratory Soil Compactors don't simply keep up– they push the pace, ensuring that you meet your commitments no matter how challenging the work.

**QUALITY.** All of that production does not come at the expense of high quality, uniform compaction. Cat Vibratory Soil Compactors make it easier for your operator to maintain exceptional work quality even during the most demanding schedules.

VALUE. Extended service intervals provide cost-savings through increased uptime and extended intervals between fluid and filter replacements.

RELIABILITY. The machines feature proven designs, and components are built to last.

Confidence. Versatility. Productivity. Quality. Value. Reliability.









#### **CAT VIBRATORY SOIL COMPACTORS DELIVER**

Cat Vibratory Soil Compactors feature more weight, increased amplitude and advanced technology to help you quickly reach target density. Long service intervals reduce the use of consumables and keep the machines running day after day, from dawn to dusk. And legendary Cat durability provides a high resale value when the time comes for replacement.

#### SUPERIOR COMPACTION PERFORMANCE

- More weight at the drum
- Higher amplitude
- Proven, reliable Cat pod-style vibratory system
- Auto-vibe function provides greater compaction uniformity
- Automatic Speed Control makes it easy to maintain
- consistent impact spacing for uniform compaction

#### TECHNOLOGY ENSURES QUALITY, EFFICIENCY

- Cat Compaction Control compaction measurement technology eliminates the need to rely on human intuition, while potentially reducing the amount of equipment and the number of people required on the job site. Cat Compaction Control has solutions that work with all compactors on all soil types
- Automated systems—Auto-vibe, Eco-mode, Automatic
  Speed Control—ensure consistency, quality and efficiency

#### **OUTSTANDING OPERATOR COMFORT**

- Operating station adjusts to suit operator comfort
- Integrated display and console provide fingertip access to settings, operating information and diagnostics
- Excellent visibility is enhanced with larger mirrors
- Redesigned ROPS/FOPS cab with excellent climate control

#### **EXCELLENT SERVICEABILITY**

- Visual indicators provide instant visual information during routine service checks
- Self diagnostics monitor operation and alert operator to unusual performance
- Long service intervals minimize operating costs
- Extensive Cat dealer support services are unrivaled in industry

#### CAT ENGINE WITH ACERT<sup>™</sup> TECHNOLOGY

- Meets emissions standards for countries that require it
- Requires minimal maintenance
- Eco-mode reduces fuel use under normal operating conditions
- Automatic Speed Control function improves compaction consistency

Cat Vibratory Soil Compactors leverage our deep expertise in earth moving to provide you with the features and performance you need for success and growth. Rely on Cat for uniform compaction that meets specification, every time.

NOTE: Some features are not available on all machines in all markets. Consult your Cat dealer for availability in your region.

# **FLAT-OUT VALUE** PROVEN PRODUCTIVITY, RELIABILITY, DURABILITY.



# WORLD-CLASS

INGENUITY, SOPHISTICATION AND PROVEN SYSTEMS NO MATTER WHERE YOU LOOK.

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- 1. Smooth Drum (padfoot shell kit option; padfoot drum configuration available)
- 2. Cat Pod-style Vibratory System
- 3. ROPS/FOPS Cab
- 4. Dual Pump Propel System
- 5. Cat C4.4 ACERT Engine\*
- 6. Air Filter
- 7. Pivoting Operator's Seat with Integrated LCD Display and Control Console
- 8. Universal Bumper
- 9. Leveling Blade (option)\*\*
- 10. Cat Compaction Control (option; CMV or MDP)\*\*
- 11. Eco-mode
- **12.** Automatic Speed Control\*\*
- 13. Auto-vibe
- 14. Cat Compaction Control GNSS Mapping (option)
- 15. Tilting Oil Cooler and Condenser
- 16. Variable speed fan
- 17. Maintenance-free Hitch
- **18.** Limited-slip Differential
- **19.** Rotating Amber Beacon (option)
- 20. Product Link<sup>™</sup> (option)

\* Some models equipped with C6.6 ACERT or C3.4B engine. Configuration may vary depending on market.

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14

20

\*\* Available on select models- consult your Cat dealer for specifics

#### **PADFOOT DRUM AND PADFOOT SHELL KIT OPTIONS**



#### **OVAL-FACED PAD DESIGN**

- Produces superior thicklift compaction results by penetrating deeper into the lift
- Tapered design introduces horizontal compaction force and inhibits material accumulation between pads







#### **DONE RIGHT, DONE NOW**

Cat Vibratory Soil Compactors quickly reach target compaction because of optimized weight and amplitude. Built-in technology helps make it easy to produce uniform, high-quality compaction consistently.

#### **ENHANCED COMPACTION PERFORMANCE**

- Weight at the drum optimized for maximum performance
- Increased amplitude provides greater compactive power
- Automatic Speed Control feature makes it easier to maintain consistency by eliminating machine speed as a variable\*
- Auto-vibe function optimizes compaction uniformity
- Optional compaction measurement systems maximize efficiency and help ensure quality

#### **CAT POD-STYLE VIBRATORY SYSTEM**

- Virtually maintenance free: 3 year/3,000 hour vibratory bearing oil change; no scheduled oil sampling necessary
- Exclusive eccentric weight provides high reliability, smooth performance and low noise
- Optional variable frequency maximizes compaction performance while Eco-mode is engaged, providing reduced fuel consumption without sacrificing compaction performance





1. Vibratory System Motor

2. Iso-mounts

- 4. Exclusive Cat Eccentric Weights
  - 5. Frequency Selection
- 3. Cat Pod-style Vibratory System
- 6. Amplitude Selection

7. Auto-vibe Control

#### **Compaction Depth for Vibratory Soil Compactors**

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



# COMPACTION MEASUREMENT TECHNOLOGY

CS74B

### GOING BEYOND OPERATOR INTUITION.

#### **CAT COMPACTION CONTROL**

Cat Compaction Control improves quality and efficiency by providing information that enables the operator to determine when compaction meets specifications. The system can be scaled from a simple real-time compaction readout to a fully featured data mapping capability. Solutions to fit your needs, able to grow with you.

#### FEATURES

- Two compaction measurement technologies are available: Compaction Meter Value (CMV) or Cat exclusive Machine Drive Power (MDP); or get both technologies (smooth drum CS models only)
- Factory integrated components and console display unit
- Can be augmented with mapping capability by adding an SBAS Global Navigation Satellite System (GNSS) mapping antenna and a dedicated display unit
- An available RTK GNSS mapping capability provides greater accuracy than SBAS

#### **COMPACTION METER VALUE (CMV)**

- An accelerometer-based measurement system for granular soils available on smooth-drum soil compactors
- Functioning while the drum vibrates, it measures deep into the ground, typically greater than one meter (3.3 ft) depending on the soil composition, providing a picture of what is beneath the surface
- Can reveal the location of hidden anomalies (such as buried objects, rocks, clay balls) or areas of poor compaction
- Can indicate the need for more moisture to aid compaction

#### **MACHINE DRIVE POWER (MDP)**

- An exclusive technology only available from Caterpillar
- Indicates soil stiffness by measuring rolling resistance
- Available on all Cat B-Series vibratory soil compactors except CS44B and CP44B—padfoots, smooth drums and smooth drums with padfoot shell kits
- Can be used on all soil types, cohesive and non-cohesive
- Measures what matters, closer to depth of the lift of materials being compacted, around 30-60 cm (1-2 ft) deep
- Measurement depth allows results to be more easily correlated with portable measuring equipment such as lightweight falling deflectometers and nuclear gauges
- Functions with static or vibrating drum
- Reduces risk of over-compaction when used for proof rolling because it does not require drum vibration

#### **KEY BENEFITS OF CAT COMPACTION CONTROL TECHNOLOGY**

- Helps crews avoid costly rework
- Prevents reliance on operator intuition
- Reduces the need for proof rollers\*
- Mapping system can enhance night-time capabilities by providing visual reference of operation\*
- Accounts for every square meter/foot on a job site\*
- Machine Drive Power works on all compactor configurations and works on all soil types: cohesive, semi-cohesive and granular
- Data tracking helps find hidden efficiencies\*

\* With GNSS Mapping option





## **POWERTRAIN** PROVEN GRADEABILITY, TRACTION, DEPENDABILITY.

#### **BUILT TO LAST**

Production-class Cat Vibratory Soil Compactors are powered by a Cat engines with ACERT Technology<sup>1</sup>. The engines deliver the power required on challenging job sites. And don't forget durability: Tough components help extend compactor life.

#### **POWER WHERE YOU NEED IT**

- Dual-pump propel system provides separate, balanced flow to the rear axle motor and drum drive motor
- Exceptional gradeability and tractive effort in both forward and reverse
- Limited-slip differential provides steady power in soft or slippery conditions by transferring torque to the wheel with better traction
- Low-effort lever on the right side of the control console provides simple propel control in forward and reverse
- Top speed, forward and reverse, is 11.4 km/h (7 mph)<sup>2</sup>

#### **ADVANCED ENGINE**

- Electronic Control Module (ECM) provides optimal performance through precisely synchronized timing and fuel delivery
- ECM enables self-diagnostics that can alert the operator to abnormal performance via the LCD display. Advanced troubleshooting and diagnostic capabilities can be conducted using Electronic Technician (Cat ET)
- Easy access to entire engine compartment and cooling module for simple, fast servicing
- Machines available in the United States, Canada and Europe meet U.S. EPA Tier 4 Final and EU Stage IV emission standards
- Machine available in Brazil meet Brazil MAR-1 emission standards
- 1 CS/CP44B features Cat C3.4B engine
- 2 Varies by model



#### CAT ENGINES: OPTIMIZED FOR POWER AND EFFICIENCY

CS/CP44B

75 kW (100.6 hp)

CS/CP54B, CS64B

98 kW (131 hp)\*

CS/CP56B, CS66B, CS/CP68B

117 kW (157 hp)\*

CS/CP74B, CS76B, CS78B, CS79B

129.5 kW (173.7 hp)

Gross power: ISO 14396 Rated Speed: 2,200 rpm

\* Varies slightly depending on engine





- 1. Cat C4.4 ACERT Engine
- 2. Coolant Reservoir
- 3. Variable Speed Fan
- 4. Air Filter
- 5. Oil Fill
- 6. Selective Catalytic Reduction Filter (SCR)
- 7. Diesel Oxidation Catalyst (DOC)
- 8. Tilting Oil Cooler

Note: C4.4 ACERT engine shown features emissions module to meet U.S. EPA Tier 4 Final and EU Stage IV emission standards and is available only in markets where it is required.

> In other markets, certain models may be equipped with a C4.4 ACERT or C6.6 ACERT that meets U.S. EPA Tier 3 and EU Stage IIIA emission standards. For machines in the Brazil market, engines meet Brazil MAR-1 emission standards.

CS/CP44B models feature a Cat C3.4B engine.

## **OPERATOR COMFORT** ENHANCED OPERATOR STATION BOOSTS OPERATOR PERFORMANCE.

Good visibility enables effective communication and promotes alertness. Long hours of operation can take a toll on operators. That's why Caterpillar designs operating stations that provide excellent control, visibility and comfort.



#### **COMFORT MATTERS**

Cat Vibratory Soil Compactors are built for extreme operating conditions, but your operators aren't. That's why comfort is built into every model. Comfort keeps your operators alert, which enhances productivity and safety. Comfortable equipment also helps you retain key employees, avoiding additional training and hiring costs.

#### **OPERATOR'S STATION**

- Controls and LCD Display integrated with pivoting adjustable seat move with the operator
- Vinyl seat for ROPS/FOPS Canopy or Steel Sun Canopy<sup>†</sup> configurations; cloth for ROPS/FOPS cab equipped machines
- Optional deluxe high back air-ride seat (cab only)
- Vibration-absorbing floor mat
- 12-volt power receptacle, supports communication devices
- Comfortable seat belt
- Convenient cup holders

#### **EXCEPTIONAL VISIBILITY AND COMFORT**

- Unimpeded views to drum edges and rear tires
- Multiple large mirrors provide wide views to rear
- Standard light package provides superior lighting; optional upgraded light package enhances overall illumination
- Low machine noise, low vibration transfer to operator
- Tilting console and adjustable seats conform to operator
- Cab features climate control, with heater and air conditioning
- Cab equipped with new swing-out windows that provide excellent cross ventilation

Note:

† Steel Sun Canopy configuration not available in all markets Consult your Cat dealer for availability in your region.

The air conditioning system on these machines contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430).

<code>CS44B/CP44B:</code> The system contains 0.9 kg of refrigerant which has a CO $_{\rm 2}$  equivalent 1.287 metric tonne.

CS54B/CP54B, CS56B/CP56B, CS64B, CS66B, CS68B/CP68B, CS74B/CP74B, CS76B, CS78B, CS79B: The system contains 0.8 kg of refrigerant which has a CO $_2$  equivalent 1.144 metric tonne.

<sup>\*</sup> Not available on CS/CP44B

- 1. Tilting Steering Console with Cup Holders
- 2. Multi-function LCD Display
- 3. Electronic Propel Lever with Vibe System Activation Button (and optional leveling blade control)
- 4. Control Console
- 5. Climate Control
- 6. Radio-ready
- 7. Floor Mat
- 8. Vinyl Pivoting Operator's Seat
- Optional Deluxe Air-ride Operator's Seat with High Back\* (Cab Only)
- 10. 12-volt Power Outlet

The redesigned cab includes controls and a multi-function LCD display that are integrated with the pivoting adjustable seat. A deluxe, high-back, airride seat is available.\*



## FINGERTIP CONTROL WORK WITH CONFIDENCE.

#### **UNDER CONTROL**

The newly designed console for Cat Vibratory Soil Compactors is convenient, helping operators quickly find what they need, when they need it. The intuitive feel gives operators the confidence they need to leverage the technology, and associated productivity, built into the machines.

#### **CONVENIENT CONSOLE**

- Controls are integrated with the seat, always at fingertips
- Soft keys and toggles are easy to operate

#### LCD DISPLAY

- Multiple functions, including machine data, diagnostics and readout for optional Cat Compaction Control
- Integrated with seat, so it remains in same position even as the seat pivots
- Lockable anti-vandalism cover for ROPS/FOPS Canopy and Steel Sun Canopy configured machines
- Back-lit for high visibility in all light conditions

\*Some features are optional or not available on all machines in all markets. Consult your Cat dealer for availability in your region.



The multi-function LCD display provides digital instrumentation, self-diagnostics and real-time basic compaction measurement (optional), keeping the operator informed for better overall job site performance.





- 1. Integrated Multi-purpose LCD Display
- 2. Propel Lever
- **3.** Vibe System Activation Button
- 4. Emergency Stop Button
- 5. Parking Brake Activation
- 6. Frequency Selection
- 7. Amplitude Selection
- 8. Auto-vibe Control
- **9.** Automatic Speed Control<sup>\*</sup>
- **10.** Propel Speed Selector

- **11.** Engine Speed/Eco-mode Selector
- Lights/Beacon Control Switches
  Ignition Switch
- **13.** Ignition Swi
- 14. Armrest
- **15.** Horn
- **16.** Optional Propel Lever with Integrated Leveling Blade Control\*

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- **17.** Blade Control Up and Down<sup>\*</sup> (blue)
- **18.** Blade Float<sup>\*</sup> (green)
- **19.** Vibe System Activation\* (red)

# **OPTIONS** ENHANCE VERSATILITY, PRODUCTIVITY, COMFORT.

*Optional equipment allows you to customize the performance of your Cat Vibratory Soil Compactor to meet the specific needs of your application.* 

#### **PADFOOT SHELL KIT**

A padfoot shell kit is available for all smooth drum models, including the CS44B, CS54B, CS56B, CS64B, CS66B, CS68B, CS74B, CS76B, CS78B and CS79B. The padfoot shell kit provides versatility by allowing a smooth drum machine to compact semi-cohesive and cohesive materials. The kit comes with interchangeable smooth drum and padfoot scrapers. Oval pad design and square pad design are available.

#### **PRODUCT LINK**

The optional Product Link system provides accurate, timely and useful information about the location, utilization and condition of your equipment. The system streamlines diagnostic efforts, maintenance scheduling, and costs by providing communication flow of vital machine data and location information between the dealer and customer.







#### **LEVELING BLADE**

A leveling blade is available for padfoot drum models CP44B, CP56B, CP68B, and CP74B, and smooth drum models CS44B, CS56B, CS66B, CS68B, and CS74B. The blade features a new bolt-on design, allowing its removal and reinstallation. The universal bumper design provides this capability.

The leveling blade is controlled with thumb switches located on the propel lever, except on the CS/CP44B which utilizes a foot pedal.

#### **OTHER OPTIONS<sup>\*</sup>**

- Cat Compaction Control (see pages 10-11)
- Bio Oil Factory Fill
- Transmission Guard
- Upgraded Lighting Package
- Rear Steel Scraper (Smooth Drum)
- Polyurethane Scrapers (front and rear, Smooth Drum)
- Rotating Beacon
- Axle Brakes
- Air Ride High Back Cloth Seat (for cab only-not available on CS44B and CP44B or in certain markets<sup>\*</sup>)
- Cab, heat only or heat/air conditioning
- Steel Sun Canopy
- ROPS/FOPS Canopy
- Italian Road Homologation (IRH)
- Recording Module
- Fuel Fill Access Door

# SERVICEABILITY

### LONG INTERVALS AND SHORT REACHES.





#### MAXIMIZE UPTIME

Routine service on Cat Vibratory Soil Compactors is conducted from the right side of the machine, with key components within easy reach from the ground. The durable one-piece hood tilts forward quickly and easily for exceptional access to the engine and cooling system. Of course the most convenient—and least costly—service of all is that which can be avoided. That's why these compactors feature long service intervals and a no-maintenance hitch.

#### FEATURES

- Self-diagnostics via the Electronic Control Modules (ECMs)
- Detects if system performance drops below normal levels and alerts the operator
- Vibratory system scheduled oil change interval is 3 years/3,000 hours, increasing uptime and reducing owning and operating costs
- Hydraulic oil service interval is 3,000 hours, with the filter positioned externally beneath the operator's platform for easy access
- Engine oil service interval is every 500 hours
- Cooling package tilts for easy cleaning
- Hitch features sealed-for-life bearings that never need greasing
- Visual indicators provide instant daily fluid level readings
- Easy, clean oil sampling prevents unnecessary fluid changes

# RESOURCEFUL

### IN EVERY WAY.

#### SUSTAINABILITY BENEFITS BUILT INTO EVERY MACHINE

- Cat C4.4 ACERT Technology and Cat C3.4B engines meet U.S. EPA Tier 4 Final and EU Stage IV emission standards\*
- Cat C4.4 ACERT and C6.6 ACERT engines meet Brazil MAR-1 emission standards  $^{\ast\ast}$
- Eco-mode reduces fuel consumption
- Extended service intervals for fluids and filters
- Cat Compaction Control maximizes efficiency
- Enhanced weight distribution and amplitude reduce number of passes required
- Robust engine block and components increase life and reduce noise levels
- Large cooling package reduces oil deterioration and varnishing of internal components as well as operating temperatures
- Ecology drains reduce the risk of spills when draining machine fluids

\* Available only in countries that require Tier 4 Final and Stage IV emission standards. Consult your Cat dealer for specifics.

\*\* For models equipped for the Brazil market.

Leveraging technology and innovation to increase efficiency and productivity with less impact on the environment; and helping our customers do the same.





## **TRAINING** MANPOWER SOLUTIONS OPTIMIZE YOUR INVESTMENT.

#### SAFER, MORE PRODUCTIVE JOB SITES

Training is an investment in the sustainability of your crew. Training teaches safe practices, and delivers additional benefits—including proper machine utilization. Training helps you get the most out of your employees and helps you maximize the value of your machine investment.

#### **TRAINING OPTIONS**

- Most training can occur on the job site, at your business, at the Cat dealer, or at Caterpillar facilities
- Training is available for individuals or entire crews, helping each understand their roles and how they fit into the productivity profile of the entire job site
- Most programs are designed to help participants share their newfound knowledge with other crew members
- Contact your Cat dealer for more information about all training programs

### PADFOOT DRUM SPECIFICATIONS

	CP44B	CP54B	CP56B	CP68B	CP74B
Operating Weight					
Machine with ROPS/FOPS - kg (lb)	7228 (15,935)	10 935 (24,096)	11 465 (25,264)	_	_
Weight at the drum with ROPS/FOPS - kg (lb)	3601 (7,939)	6300 (13,887)	6365 (14,026)	_	_
Machine with CAB - kg (lb)	7471 (16,471)	11 135 (24,539)	11 665 (25,707)	14 685 (32,370)	16 355 (36,048)
Weight at the drum with CAB - kg (lb)	3711 (8,181)	6395 (14,092)	6455 (14,231)	9250 (20,387)	10 725 (23,633)
Machine Dimensions					
Overall length - m (ft/in)	5.09 (16' 9")	5.85 (19' 2")	5.86 (19' 3")	6.05 (19' 10")	6.05 (19' 10")
Overall length with leveling blade option - m (ft/in)	5.61 (18' 5")	_	6.40 (21' 0")	6.55 (21' 6")	6.55 (21' 6")
Overall width - m (ft/in)	1.8 (5' 11")	2.30 (7' 7")	2.30 (7' 7")	2.33 (7' 8")	2.33 (7' 8")
Overall width with leveling blade option - m (ft/in)	2.12 (7' 0")		2.50 (8' 3")	2.50 (8' 3")	2.50 (8' 3")
Maximum machine height - m (ft/in)	2.85 (9' 4")	3.11 (10' 3")	3.11 (10' 3")	3.11 (10' 3")	3.11 (10' 3")
Wheelbase - m (ft/in)	2.6 (8' 6")	2.90 (9' 7")	2.90 (9' 7")	2.90 (9' 7")	2.90 (9' 7")
Ground clearance - mm (in)	408 (16.1)	450 (17.7)	454 (17.9)	445 (17.5)	445 (17.5)
Curb clearance - mm (in)	371 (14.6)	551 (21.7)	506 (19.9)	497 (19.6)	497 (19.6)
Minimum turning radius, inside drum edge - m (ft/in)	3.05 (10' 0")	3.68 (12' 1")	3.68 (12' 1")	3.68 (12' 1")	3.68 (12' 1")
Drum Dimensions					
Drum width - mm (in)	1676 (66	2134 (84)	2134 (84)	2134 (84)	2134 (84)
Drum shell thickness - mm (in)	25 (1)	25 (1)	30 (1.18)	30 (1.18)	40 (1.57)
Drum diameter - mm (in)	1047 (41.2)	1295 (51)	1295 (51)	1295 (51)	1295 (51)
Drum diameter over pads, oval - mm (in)	1225 (48.2)	1549 (61)	1549 (61)	1549 (61)	1549 (61)
Drum diameter over pads, square - mm (in)	1207 (47.5)	1493 (58.7)	1493 (58.7)	1493 (58.7)	1493 (58.7)
Number of pads	108	140	140	140	140
Pad height, oval face - mm (in)	89 (3.5)	127 (5)	127 (5)	127 (5)	127 (5)
Pad height, square face option- mm (in)	79.4 (3.1)	100 (3.9)	100 (3.9)	100 (3.9)	100 (3.9)
Pad surface area, oval face - cm <sup>2</sup> (in <sup>2</sup> )	63.8 (9.9)	74.4 (11.5)	74.4 (11.5)	74.4 (11.5)	74.4 (11.5)
Pad surface area, square face option - cm <sup>2</sup> (in <sup>2</sup> )	95.5 (14.8)	123 (19.1)	123 (19.1)	123 (19.1)	123 (19.1)
Vibratory System					
Maximum frequency - Hz (vpm)	31.9 (1914)	30.5 (1830)	30.5 (1830)	30.5 (1830)	28 (1680)
Nominal amplitude @ max frequency					
High - mm (in)	1.59 (0.063)	1.9 (0.075)	2.1 (0.083)	2.1 (0.083)	2.1 (0.083)
Low - mm (in)	0.80 (0.032)	0.88 (0.035)	0.98 (0.039)	0.98 (0.039)	0.98 (0.039)
Centrifugal force					
High - kN (lb)	133 (29,900)	266 (59,800)	301 (67,600)	301 (67,600)	332 (74,600)
Low - kN (lb)	67 (15,000)	133 (29,900)	141 (31,670)	141 (31,670)	166 (37,300)
Power Train					
Engine	Cat C3.4B	Cat C4.4 ACERT	Cat C4.4 ACERT <sup>†</sup>	Cat C4.4 ACERT <sup>†</sup>	Cat C4.4 ACERT <sup>†</sup>
Gross power ISO 14396 - kW (hp) @ 2200 rpm	75 (100.6)	98 (131)	117 (157)	117 (157)	129.5 (173.7)
Maximum speed - km/h (mph)	11.4 (7.0)	11 (6.8)	11.4 (7.0)	11.4 (7.0)	11.4 (7.0)
Tire Size	14.9 x 24	23.1 x 26	23.1 x 26	23.1 x 26	23.1 x 26
Miscellaneous					
Electrical system - volts	12	24	24	24	24
Articulation angle - degrees	37	34	34	34	34
Oscillation angle - degrees	15	15	15	15	15
Fuel tank capacity - L (gal)	150 (40)	242 (64)	242 (64)	242 (64)	332 (88)
Diesel Exhaust Fluid refill capacity - L (gal)	18.9 (5)	15 (4)	15 (4)	15 (4)	15 (4)

### **SPECIFICATIONS**

#### **SMOOTH DRUM**

	CS44B	CS54B	CS56B	CS64B	CS66B <sup>1</sup>
Operating Weight					
Machine with ROPS/FOPS - kg (lb)	6943 (15,307)	10 355 (22,822)	11 290 (24,887)	_	_
Weight at the drum with ROPS/FOPS - kg (lb)	3384 (7,460)	5785 (12,754)	6255 (13,788)	_	_
Static Linear Load with ROPS/FOPS - kg/cm (lb/in)	20.2 (113)	27.1 (151.8)	29.3 (164.1)	_	_
Machine with CAB - kg (lb)	7210 (15,895)	10 555 (23,265)	11 500 (25,346)	12 355 (27,238)	12 360 (27,249)
Weight at the drum with CAB - kg (lb)	3518 (7,756)	5880 (12,959)	6350 (13,990)	7120 (15,690)	7355 (16,214)
Static Linear Load with CAB - kg/cm (Ib/in)	21 (118)	27.6 (154.3)	29.8 (166.6)	33.4 (186.8)	34.5 (193)
Machine Dimensions					
Overall length - m (ft/in)	5.09 (16' 9")	5.85 (19' 2")	5.86 (19' 3")	5.85 (19' 2")	5.86 (19' 3")
Overall length with leveling blade option - m (ft/in)	5.62 (18' 6")	_	6.40 (21' 0")	_	6.40 (21' 0")
Overall width - m (ft/in)	1.8 (5' 11")	2.30 (7' 7")	2.30 (7' 7")	2.33 (7' 8")	2.33 (7' 8")
Overall width with leveling blade option - m (ft/in)	2.12 (7' 0")	_	2.50 (8' 3")	_	2.50 (8' 3")
Maximum machine height - m (ft/in)	2.85 (9' 4")	3.11 (10' 3")	3.11 (10' 3")	3.11 (10' 3")	3.11 (10' 3")
Wheelbase - m (ft/in)	2.6 (8' 6")	2.90 (9' 7")	2.90 (9' 7")	2.90 (9' 7")	2.90 (9' 7")
Ground clearance - mm (in)	411 (16.2)	442 (17.4)	442 (17.4)	442 (17.4)	442 (17.4)
Curb clearance - mm (in)	369 (14.5)	543 (21.4)	494 (19.4)	491 (19.3)	494 (19.4)
Minimum turning radius, inside drum edge - m (ft/in)	3.05 (10' 0")	3.68 (12' 1")	3.68 (12' 1")	3.68 (12' 1")	3.68 (12' 1")
Drum Dimensions					
Drum width - mm (in)	1676 (66)	2134 (84)	2134 (84)	2134 (84)	2134 (84)
Drum shell thickness - mm (in)	25 (1)	25 (1)	30 (1.18)	25 (1)	30 (1.18)
Drum diameter - mm (in)	1221 (48.1)	1534 (60.4)	1534 (60.4)	1534 (60.4)	1534 (60.4)
Padfoot Shell Kit Drum Dimensions					
Drum diameter over pads - mm (in)	1420 (55.9)	1730 (68.1)	1730 (68.1)	1730 (68.1)	1730 (68.1)
Number of pads	98	120	120	120	120
Pad height - mm (in)	89 (3.5)	90 (3.5)	90 (3.5)	90 (3.5)	90 (3.5)
Pad surface area, oval face option - cm <sup>2</sup> (in <sup>2</sup> )	63.8 (9.9)	63.5 (9.8)	63.5 (9.8)	63.5 (9.8)	63.5 (9.8)
Pad surface area, square face option - cm² (in²)	95.5 (14.8)	123 (19.1)	123 (19.1)	123 (19.1)	123 (19.1)
Vibratory System					
Maximum frequency - Hz (vpm)	31.9 (1914)	30.5 (1830)	30.5 (1830)	30.5 (1830)	30.5 (1830)
Nominal amplitude @ max frequency					
High - mm (in)	1.67 (0.066)	1.9 (0.075)	2.1 (0.083)	1.9 (0.075)	2.1 (0.083)
Low - mm (in)	0.84 (0.033)	0.95 (0.037)	0.98 (0.039)	0.95 (0.037)	0.98 (0.039)
Centrifugal force					
High - kN (lb)	133 (29,900)	234 (52,600)	301 (67,600)	234 (52,600)	301 (67,600)
Low - kN (lb)	67 (15,000)	133 (29,900)	141 (31,670)	133 (29,900)	141 (31,670)
Power Train					
Engine	Cat C3.4B	Cat C4.4 ACERT	Cat C4.4 ACERT <sup>†</sup>	Cat C4.4 ACERT	Cat C4.4 ACERT
Gross power ISO 14396 - kW (hp) @ 2200 rpm	75 (100.6)	98 (131)	117 (157)	98 (131)	117 (157)
Maximum speed - km/h (mph)	11.4 (7.0)	11 (6.8)	11.4 (7.0)	11 (6.8)	11.4 (7.0)
Tire Size	14.9 x 24	23.1 x 26	23.1 x 26	23.1 x 26	23.1 x 26
Miscellaneous					
Electrical system - volts	12	24	24	24	24
Articulation angle - degrees	37	34	34	34	34
Oscillation angle - degrees	15	15	15	15	15
Fuel tank capacity - L (gal)	150 (40)	242 (64)	242 (64)	242 (64)	242 (64)
Diesel Exhaust Fluid refill capacity - L (gal)	18.9 (5)	15 (4)	15 (4)	15 (4)	15 (4)
Specifications may yany depending on machine configuration and region	1 - Available in	Europo only			

Specifications may vary depending on machine configuration and region. Consult your Cat dealer for specifics. † Some markets feature C6.6 ACERT

1 - Available in Europe only 2 - Not available in US, Canada, Europe

#### **SMOOTH DRUM**

### **SPECIFICATIONS**

	CS68B	CS74B	<b>CS76B</b> <sup>1</sup>	CS78B	CS79B <sup>2</sup>
Operating Weight					
Machine with ROPS/FOPS - kg (lb)	_	_	_	_	
Weight at the drum with ROPS/FOPS - kg (lb)	_	_	_	_	_
Static Linear Load with ROPS/FOPS - kg/cm (lb/in)	_	_	_	_	_
Machine with CAB - kg (lb)	14 325 (31,572)	16 000 (35,264)	17 445 (38,450)	18 700 (41,214)	20 200 (44,577)
Weight at the drum with CAB - kg (lb)	9150 (20,164)	10 620 (23,410)	12 190 (26,868)	13 440 (29,626)	13 612 (30,009)
Static Linear Load with CAB - kg/cm (lb/in)	42.9 (240.1)	49.7 (278.7)	57.1 (319.9)	63 (352.7)	63.6 (357)
Machine Dimensions					
Overall length - m (ft/in)	6.05 (19' 10")	6.05 (19' 10")	6.13 (20' 1")	6.13 (20' 1")	6.13 (20' 1")
Overall length with leveling blade option - m (ft/in)	6.55 (21' 6")	6.55 (21' 6")	_	_	_
Overall width - m (ft/in)	2.33 (7' 8")	2.33 (7' 8")	2.36 (7' 9")	2.46 (8' 1")	2.46 (8' 1")
Overall width with leveling blade option - m (ft/in)	2.50 (8' 3")	2.50 (8' 3")		_	
Maximum machine height - m (ft/in)	3.11 (10' 3")	3.11 (10' 3")	3.11 (10' 3")	3.11 (10' 3")	3.11 (10' 3")
Wheelbase - m (ft/in)	2.90 (9' 7")	2.90 (9' 7")	2.90 (9' 7")	2.90 (9' 7")	2.90 (9' 7")
Ground clearance - mm (in)	437 (17.2)	437 (17.2)	437 (17.2)	437 (17.2)	437 (17.2)
Curb clearance - mm (in)	489 (19.3)	489 (19.3)	528 (20.8)	535 (21.1)	535 (21.1)
Minimum turning radius, inside drum edge - m (ft/in)	3.68 (12' 1")	3.68 (12' 1")	3.68 (12' 1")	3.68 (12' 1")	3.68 (12' 1")
Drum Dimensions					
Drum width - mm (in)	2134 (84)	2134 (84)	2134 (84)	2134 (84)	2134 (84)
Drum shell thickness - mm (in)	30 (1.18)	40 (1.57)	40 (1.57)	40 (1.57)	40 (1.57)
Drum diameter - mm (in)	1534 (60.4)	1534 (60.4)	1534 (60.4)	1534 (60.4)	1534 (60.4)
Padfoot Shell Kit Drum Dimensions					
Drum diameter over pads - mm (in)	1730 (68.1)	1730 (68.1)	1730 (68.1)	1730 (68.1)	1730 (68.1)
Number of pads	120	120	120	120	120
Pad height - mm (in)	90 (3.5)	90 (3.5)	90 (3.5)	90 (3.5)	90 (3.5)
Pad surface area, oval face option - cm <sup>2</sup> (in <sup>2</sup> )	63.5 (9.8)	63.5 (9.8)	63.5 (9.8)	63.5 (9.8)	63.5 (9.8)
Pad surface area, square face option - cm² (in²)	123 (19.1)	123 (19.1)	123 (19.1)	123 (19.1)	123 (19.1)
Vibratory System					
Maximum frequency - Hz (vpm)	30.5 (1830)	28 (1680)	28 (1680)	28 (1680)	28 (1680)
Nominal amplitude @ max frequency					
High - mm (in)	2.1 (0.083)	2.1 (0.083)	2.1 (0.083)	2.1 (0.083)	2.1 (0.083)
Low - mm (in)	0.98 (0.039)	0.98 (0.039)	0.98 (0.039)	0.98 (0.039)	0.98 (0.039)
Centrifugal force	001 (07 000)	000 (74 000)	000 (74 000)	000 (74 000)	000 (74 000)
High - kN (lb)	301 (67,600)	332 (74,600)	332 (74,600)	332 (74,600)	332 (74,600)
Low - kN (lb)	141 (31,670)	166 (37,300)	166 (37,300)	166 (37,300)	166 (37,300)
Power Train					
	Cat C4.4 ACERT	Cat C4.4 ACERT	Cat C4.4 ACERT	Cat C4.4 ACERT	Cat C6.6 ACERT
Gross power ISO 14396 - kW (hp) @ 2200 rpm	117 (157)	129.5 (173.7)	129.5 (173.7)	129.5 (173.7)	129.5 (173.7)
Maximum speed - km/h (mph) Tire Size	11.4 (7.0) 23.1 x 26	11.4 (7.0) 23.1 x 26	11.4 (7.0) 23.1 x 26	11.4 (7.0) 23.1 x 26	11.4 (7.0) 23.1 x 26
Miscellaneous Electrical system - volts	24	24	24	24	24
Articulation angle - degrees	34	34	34	34	34
Oscillation angle - degrees	15	15	15	15	15
Fuel tank capacity - L (gal)	242 (64)	332 (88)	332 (88)	332 (88)	332 (88)
Diesel Exhaust Fluid refill capacity - L (gal)	15 (4)	15 (4)	15 (4)	15 (4)	552 (00)

Specifications may vary depending on machine configuration and region. Consult your Cat dealer for specifics. † Some markets feature C6.6 ACERT

1 - Available in Europe only 2 - Not available in US, Canada, Europe

### DIMENSIONS





### DIMENSIONS

	CP44B	CP54B	CP56B	CP68B	CP74B
Machine Dimensions					
1 Overall length - m (ft/in)	5.09 (16' 9")	5.85 (19' 2")	5.86 (19' 3")	6.05 (19' 10")	6.05 (19' 10")
2 Overall length w/leveling blade option - m (ft/in)	5.61 (18' 5")	_	6.40 (21' 0")	6.55 (21' 6")	6.55 (21' 6")
<b>3</b> Overall width - m (ft/in)	1.8 (5' 11")	2.30 (7' 7")	2.30 (7' 7")	2.33 (7' 8")	2.33 (7' 8")
4 Overall width w/leveling blade option - m (ft/in)	2.12 (7' 0")	_	2.50 (8' 3")	2.50 (8' 3")	2.50 (8' 3")
5 Drum width - mm (in)	1676 (66)	2134 (84)	2134 (84)	2134 (84)	2134 (84)
6 Drum shell thickness - mm (in)	25 (1)	25 (1)	30 (1.18)	30 (1.18)	40 (1.57)
7 Drum diameter, over pads - mm (in)	1225 (48.2)	1549 (61)	1549 (61)	1549 (61)	1549 (61)
8 Overall height, ROPS/FOPS cab- m (ft/in)	2.85 (9' 4")	3.11 (10' 3")	3.11 (10' 3")	3.11 (10' 3")	3.11 (10' 3")
Overall height, ROPS/FOPS - m (ft/in)	2.81 (9' 3")	3.08 (10' 1")	3.08 (10' 1")	_	_
9 Wheelbase - m (ft/in)	2.6 (8' 6")	2.90 (9' 7")	2.90 (9' 7")	2.90 (9' 7")	2.90 (9' 7")
10 Ground clearance - mm (in)	408 (16.1)	450 (17.7)	454 (17.9)	445 (17.5)	445 (17.5)
11 Curb clearance - mm (in)	371 (14.6)	551 (21.7)	506 (19.9)	497 (19.6)	497 (19.6)
12 Optional leveling blade height - mm (in)	575 (22.6)	_	688 (27.1)	688 (27.1)	688 (27.1)

	CS44B	CS54B	CS56B	CS64B	CS66B <sup>1</sup>
Machine Dimensions					
1 Overall length - m (ft/in)	5.09 (16' 9")	5.85 (19' 2")	5.86 (19' 3")	5.85 (19' 2")	5.86 (19' 3")
2 Overall length w/leveling blade option - m (ft/in)	5.62 (18' 6")	_	6.40 (21' 0")	_	6.40 (21' 0")
<b>3</b> Overall width - m (ft/in)	1.8 (5' 11")	2.30 (7' 7")	2.30 (7' 7")	2.33 (7' 8")	2.33 (7' 8")
4 Overall width w/leveling blade option - m (ft/in)	2.12 (7' 0")	_	2.50 (8' 3")	_	2.50 (8' 3" )
5 Drum width - mm (in)	1676 (66)	2134 (84)	2134 (84)	2134 (84)	2134 (84)
6 Drum shell thickness - mm (in)	25 (1)	25 (1)	30 (1.18)	25 (1)	30 (1.18)
7 Drum diameter - mm (in)	1221 (48.1)	1534 (60.4)	1534 (60.4)	1534 (60.4)	1534 (60.4)
8 Overall height, ROPS/FOPS cab- m (ft/in)	2.85 (9' 4")	3.11 (10' 3")	3.11 (10' 3")	3.11 (10' 3")	3.11 (10' 3")
Overall height, ROPS/FOPS - m (ft/in)	2.81 (9' 3")	3.08 (10' 1")	3.08 (10' 1")	-	-
9 Wheelbase - m (ft/in)	2.6 (8' 6")	2.90 (9' 7")	2.90 (9' 7")	2.90 (9' 7")	2.90 (9' 7")
10 Ground clearance - mm (in)	411 (16.2)	442 (17.4)	442 (17.4)	442 (17.4)	442 (17.4)
11 Curb clearance - mm (in)	369 (14.5)	543 (21.4)	494 (19.4)	491 (19.3)	494 (19.4)
12 Optional leveling blade height - mm (in)	575 (22.6)	_	688 (27.1)	_	688 (27.1)

	CS68B	CS74B	CS76B <sup>1</sup>	CS78B	CS79B <sup>2</sup>
Machine Dimensions					
1 Overall length - m (ft/in)	6.05 (19' 10")	6.05 (19' 10")	6.13 (20' 1")	6.13 (20' 1")	6.13 (20' 1")
2 Overall length w/leveling blade option - m (ft/in)	6.55 (21' 6")	6.55 (21' 6")	_	_	_
<b>3</b> Overall width - m (ft/in)	2.33 (7' 8")	2.33 (7' 8")	2.36 (7' 9")	2.46 (8' 1")	2.46 (8' 1")
4 Overall width w/leveling blade option - m (ft/in)	2.50 (8' 3")	2.50 (8' 3")	_	_	_
5 Drum width - mm (in)	2134 (84)	2134 (84)	2134 (84)	2134 (84)	2134 (84)
6 Drum shell thickness - mm (in)	30 (1.18)	40 (1.57)	40 (1.57)	40 (1.57)	40 (1.57)
7 Drum diameter - mm (in)	1534 (60.4)	1534 (60.4)	1534 (60.4)	1534 (60.4)	1534 (60.4)
8 Overall height, ROPS/FOPS cab- m (ft/in)	3.11 (10' 3")	3.11 (10' 3")	3.11 (10' 3")	3.11 (10' 3")	3.11 (10' 3")
Overall height, ROPS/FOPS - m (ft/in)	_	_	_	_	_
9 Wheelbase - m (ft/in)	2.90 (9' 7")	2.90 (9' 7")	2.90 (9' 7")	2.90 (9' 7")	2.90 (9' 7")
10 Ground clearance - mm (in)	437 (17.2)	437 (17.2)	437 (17.2)	437 (17.2)	437 (17.2)
11 Curb clearance - mm (in)	489 (19.3)	489 (19.3)	528 (20.8)	535 (21.1)	535 (21.1)
12 Optional leveling blade height - mm (in)	688 (27.1)	688 (27.1)	_	-	-

Leveraging our vast experience in the earth moving industry, Caterpillar has produced a line of vibratory soil compactors that provide contractors around the world with the confidence to know that the base they build will support their project.







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