

# Cat® CS56B

Smooth Drum Vibratory
Soil Compactor

The Cat® CS56B 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 to specification for greater productivity and uniform compaction quality
- Exclusive Machine Drive Power (MDP) measurement technology available



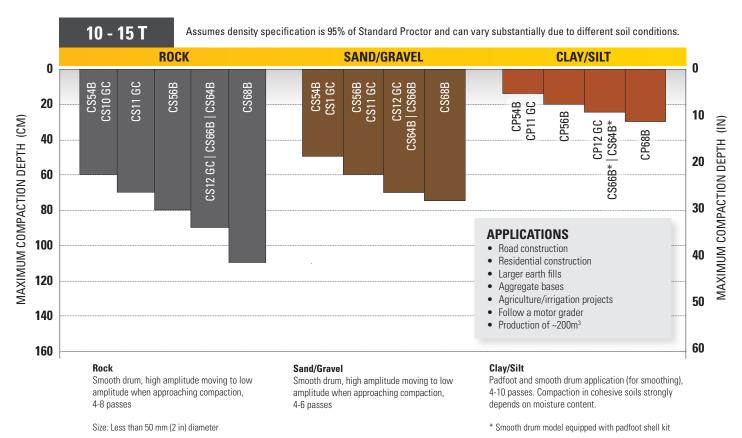
### **Standard and Optional Equipment**

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

	Standard	Optional
OPERATOR ENVIRONMENT		
ROPS/FOPS Cab with Climate Control, External Rear View Mirrors	✓	
Cloth Adjustable Pivoting Seat with Integrated Console and LCD Display	✓	
Adjustable Tilting Steering Column with Integrated Cup Holders	$\checkmark$	
Rear Vision Camera with Color Touchscreen Display	✓	
High Visibility Orange 50 mm (2 in) Seat Belt	✓	
12-volt Power Outlet	✓	
Horn, Backup Alarm	✓	
Internal Rear View Mirror		✓
Sun Visor		✓
Cab Internal Roll-down Sun Screen		✓
High Visibility Orange 76 mm (3 in) Seat Belt		✓
VIBRATORY SYSTEM		
Smooth Drum	✓	
Dual Amplitude, Single Frequency	✓	
Dual Pod-Style Eccentric Weight Housings	✓	
Auto-vibe Function	✓	
Front Adjustable Steel Scraper	✓	
Padfoot Shell Kit (oval or square pads available	e)	✓
Leveling Blade		✓
Variable Frequency		✓
Dual Adjustable Steel Scrapers		✓
Dual Adjustable Polyurethane Scrapers		✓
TECHNOLOGY SOLUTIONS		
Measure - Machine Drive Power		✓
Map - SBAS GNSS Mapping		✓
Connect - Cloud and Machine Connectivity		✓
Command for Compaction		$\checkmark$

	Standard	Optional
POWER TRAIN		
Cat® C4.4 Diesel Engine	✓	
Air Cleaner, Dual Element	✓	
Three-Speed Throttle Switch, Eco-mode and Automatic Speed Control	✓	
Dual Propel Pumps; One for Drum Drive, One for Rear Axle	✓	
Fuel Filter, Water Separator, Priming Pump, Water Indicator	✓	
Tilting Radiator/Hydraulic Oil Cooler	✓	
Dual Braking System	✓	
Two-speed Hydrostatic Transmission	✓	
Transmission Guard		✓
ELECTRICAL		
24 volt Electrical System	$\checkmark$	
100 ampere Alternator	✓	
750 Cold-cranking Amps Battery Capacity	✓	
OTHER		
Product Link <sup>™</sup>	✓	
Sight Gauges Hydraulic Oil Level and Radiator Coolant Level	✓	
S•O•S <sup>SM</sup> Sampling Valves: Engine Oil, Hydraulic Oil and Coolant	✓	
Machine tie downs - front and rear (meet ISO 15818)	✓	
Recording Module		✓
Factory Filled Bio Hydraulic Oil		✓
Upgraded Halogen Light Package		✓
Upgraded LED Light Package		✓
Amber Rotating Beacon		✓
Fuel Fill Access Door		✓
Italian Road Homologation (IRH)		✓

### **Vibratory Soil Compactor Selection Guide**



Not all models are available in each region. Contact your Cat® dealer representative for more information.

### **Technical Specifications**

Engine - Power Train		
Engine Model	Cat C4.4	
Emissions	EU Stage V	
Engine Power ISO 14396:2002	117.0 kW	156.9 hp
Gross Power SAE J1995:2014	118.0 kW	158.2 hp
Net Power ISO 9249:2007*	97.4 kW	130.6 hp
Net Power SAE J1349:2011*	96.9 kW	129.9 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**	> 65%	

Weights		
Operating Weight w/ ROPS/FOPS cab***	11 953 kg	26,352 lb
w/ Leveling Blade	12 607 kg	27,794 lb
w/ Oval Padfoot Shell Kit	13 830 kg	3,490 lb
w/ Oval Padfoot Shell Kit and Leveling Blade	14 484 kg	31,932 lb
w/ Square Padfoot Shell Kit	13 990 kg	30,843 lb
w/ Square Padfoot Shell Kit and Leveling Blade	14 644 kg	32,285 lb
Weight at Drum w/ ROPS/FOPS cab	6339 kg	13,975 lb
w/ Leveling Blade	7249 kg	15,981 lb
w/ Oval Padfoot Shell Kit	8219 kg	18,120 lb
w/ Oval Padfoot Shell Kit and Leveling Blade	9129 kg	20,126 lb
w/ Square Padfoot Shell Kit	8379 kg	18,473 lb
w/ Square Padfoot Shell Kit and Leveling Blade	9289 kg	20,479 lb

- 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, traction tires, oval pad drum, and cab with A/C.

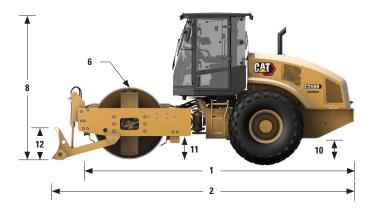
Vibratory System Specifications			
Frequency			
Standard	30.5 Hz	1830 vpm	
During Eco-mode Operation	27.7 Hz	1664 vpm	
Optional Variable Frequency	23.3-30.5 Hz	1400-1830 vpm	
Nominal Amplitude @ 30.5 Hz (1830 vpm)			
High	2.1 mm	0.083 in	
Low	0.98 mm	0.039 in	
Centrifugal Force @ 30.5 Hz (1830 vpm)			
Maximum	301 kN	67,600 lb	
Minimum	141 kN	31,670 lb	
Static Linear Load			
w/ ROPS/FOPS cab	29.7 kg/cm	166.3 lbs/in	
VM Class at High Amplitude	V	VM3	

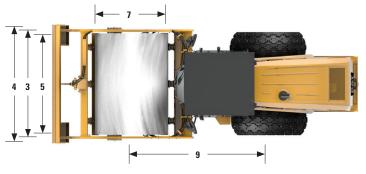
Service Refill Capacities		
Fuel Tank, total capacity	242 L	64 gal
Diesel Exhaust Fuel refill capacity	19 L	5 gal
Cooling System	27.8 L	7.3 gal
Engine Oil w/ Filter	11.6 L	3.1 gal
Eccentric Weight Housings (combined)	26 L	6.9 gal
Axle and Final Drives	18 L	4.8 gal
Hydraulic Tank (service refill)	50 L	13.2 gal

### **Technical Specifications**

	Dimensions		
1	Overall Length	5.9 m	19.2 ft
2	Overall Length w/ optional Leveling Blade	6.4 m	21.0 ft
3	Overall Width	2.3 m	7.5 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	30 mm	1.2 in
7	Drum Diameter	1549 mm	61.0 in
8	Overall Height	3.1 m	10.2 ft
9	Wheelbase	2.9 m	9.5 ft
10	Ground Clearance	452 mm	17.8 in
11	Curb Clearance	500 mm	19.7 in
12	Optional Leveling Blade Height	688 mm	27.1 in
	Inside Turning Radius	3.7 m	12.1 ft
	Hitch Articulation Angle	34	0
	Hitch Oscillation Angle	15	0

Padfoot Specifications		
Number of Pads	140	
Pad Height, oval pads	127.0 mm	5.0 in
Pad Face Area, oval pads	74.4 cm <sup>2</sup>	11.5 in <sup>2</sup>
Pad Height, optional square pads	100.0 mm	3.9 in
Pad Face Area, optional square pads	123.1 cm <sup>2</sup>	19.1 in <sup>2</sup>
Number of Chevrons	14	





#### **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 C4.4 is available in configurations that meet Stage V emissions 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 (hydrogenated 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.

### **AIR CONDITIONING SYSTEM**

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 0.8 kg (1.8 lb) of refrigerant, which has a  ${\rm CO_2}$  equivalent of 1.144 metric tonnes (1.261 tons).

#### **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:

Exterior Sound Power Level (ISO 6395:2008) - 109 dB(A)

With cooling fan speed at 70% of maximum value:

Operator Sound Pressure Level (ISO 6396:2008) - 79 dB(A)

- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166 OCT98, meets OSHA and MSHA requirements for operator sound exposure limits in effect at time of manufacture.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in a noisy environment.

### **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.

### **FEATURES AND TECHNOLOGY**

- The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.
  - Standard mode limits engine RPM, lowering overall fuel consumption compared to high idle
  - Optional compaction control reduces unnecessary passes, contributing to lower overall fuel consumption
  - Extended maintenance intervals reduce fluid and filter consumption
- Auto idle shutdown reduces unproductive hours and fuel burned
- Hydraulic on-demand fan changes speed with temperature



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