Cat® 3054C Turbocharged Diesel Engine

Gross Power 97 kW/130 hp
Drum Width 2134 mm

Operating Weight (with ROPS/FOPS cab)

<table>
<thead>
<tr>
<th>Model</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS533E</td>
<td>10 840 kg</td>
</tr>
<tr>
<td>CS533E with Heavy Weight option</td>
<td>12 360 kg</td>
</tr>
<tr>
<td>CP533E</td>
<td>11 680 kg</td>
</tr>
</tbody>
</table>
Productivity and Reliability in a Durable Package
The CS533E and CP533E Soil Compactors offer high compaction performance, speed and gradeability to maximize productivity while providing exceptional reliability and durability.

Engine
Cat 3054C turbocharged electronic diesel engine delivers 97 kW (130 hp) and is built for performance and reliability without sacrificing fuel economy. pg. 4

Vibratory System
Pod-style eccentric weights ensure peak compaction performance and minimal service. High dynamic force helps achieve density in the fewest number of passes. pg. 5

Gradeability and Machine Control
The exclusive dual pump propel system provides a separate balanced hydraulic flow to both the rear drive axle and the front drum drive motor. This unique dual pump propel system provides good grade climbing, machine control and tractive power. Dual pumps also minimize drum and wheel spin-out in low traction conditions. High working speeds increases productivity. pg. 7

Versatility
Standard dual amplitude expands the compactor’s application range. The large spread between high and low centrifugal force makes it easier to tailor the compactive effort to density specifications. pg. 5

Performance and reliability you can depend on.
Durable field-proven power train and vibratory systems and the world’s largest and most dedicated dealer support system ensure the CS533E and CP533E Soil Compactors will provide maximum utilization.
**Visibility**
The sloped hood design provides exceptional operator visibility to the outside edge of the rear tires and to the rear of the machine. pg. 8

**Serviceability**
The fiberglass hood tilts forward to allow access to the engine and daily maintenance points. Daily check points are accessible from ground level. The rear mounted cooling system features a hydraulic oil cooler that tilts down for easier access for cleaning. The operator's platform tilts forward to provide convenient access to the hydraulic components. Vibratory bearing lube service interval of 3 year/3000 hour keeps maintenance to a minimum and maximizes production. The engine lubrication change interval is 500 hours. The articulation hitch area features sealed-for-life bearings that effectively eliminate the need for maintenance. pg. 10

**Operator's Station**
The new CS533E and CP533E Soil Compactors feature excellent operator comfort and visibility. A propel lever wrist rest, grouped control gauges and conveniently located control switches enhance operator productivity and reduce fatigue. Four heavy-duty isolation mounts provide a smooth ride. Standard rearview mirrors, two front-facing and two rear-facing working lights are provided. Machines with the open ROPS/FOPS platform are surrounded by handrails and features angled foot rests for sure footing when working on a grade. pg. 6

**Padfoot Shell Kit**
The optional padfoot shell kit makes the CS533E an extremely adaptable machine when compacting cohesive or semi-cohesive materials. pg. 9

*Comfort and serviceability you deserve.*
The operator's station provides a spacious and comfortable work environment that allows simple and productive operation. Good service access and long service intervals minimize maintenance time and increases productive work time.
Caterpillar® 3054C Turbocharged Diesel Engine

High-tech four cylinder engine provides outstanding durability, performance, reliability and operating economy.

Turbocharged air-to-air aftercooling. It provides improved fuel economy by packing cooler, denser air into cylinders for more complete combustion of fuel and lower emissions.


Cylinder head. Cross-flow cylinder head improves air flow into cylinders which increases power while lowering fuel consumption, engine emissions and noise.

Oil pump. Low-mounted oil pump for quick start-up-lubrication.

Oil cooler. The large oil cooler reduces oil deterioration and varnishing of internal components. Allows for 500 hour engine oil change intervals.

Stage II compliant. The 3054C engine meets EU directive 97/68/EC Stage II emission requirements.

Dual Pump Propel System

High tractive effort and gradeability for outstanding productivity in tough applications.

Dual propel pumps. Dual propel pumps provide separate, balanced hydraulic flow to the rear wheel axle and the drum drive motors. Provides superior gradeability on steep slopes and increases tractive effort in loose or poor underfoot conditions.

Limited slip differential. It provides balanced tractive effort and smooth torque transfer to both rear wheels.

Speed ranges. Two speed ranges for versatile operation. Low speed range for vibratory operation and maximum torque when climbing grades. High speed range moves machine quickly over longer distances.

Valves. Flushing valves in each propel circuit helps keep hydraulic oil cool and clean for maximum system efficiency.
Vibratory System

The pod-style vibratory system, delivers superior compactive force while offering serviceability advantages.

Pod-style weight housings. They are assembled and sealed at the factory to ensure cleanliness, longer bearing life and easier field exchange or service.

Dual amplitude. Dual amplitude works efficiently in a wider range of applications. High or low amplitude is selected from the operator’s station.

Heavy-duty bearings. Large heavy-duty bearings for the eccentric weight shaft designed for high compactive forces.

Service interval. 3 year/3000 hour vibratory bearing lube service interval for reduced maintenance.

Heavy duty isolation mounts. Improved isolation mounts allow more force to be transmitted to the ground and less vibration to the drum yoke.

Patented Eccentric Weights

Reliable dual amplitude selection and innovative design ensure precise performance.

Amplitude selection. Positive amplitude selection is accomplished when the steel shot is repositioned inside the hollow eccentric weight. Direction of weight shaft rotation determines amplitude level.

High reliability. High reliability since there is no chance of the high-strength spherical steel shot wedging together. System reliability is superior to swinging mechanical weights and is also quieter during starts and stops.

Simplified control. Simplified control from the operator’s station with a selection switch on the operator’s console.

Longer service life. No heavy weights to slam together, no metal fragments to contaminate the bearing lubrication system.
Operator’s Station

Ergonomically designed for maximum operator productivity while offering excellent visibility and unmatched comfort.

**Single lever control.** The single lever control for propel and vibratory On/Off provides simple and low effort operation. A padded adjustable wrist rest provides comfort.

**Control panel.** The control panel with grouped switches puts all controls within easy operator reach.

**Storage.** Convenient storage compartment for storing operator’s personal items.

**Seat.** The comfortable and durable seat has adjustable fore/aft position, bottom cushion height, suspension stiffness and flip-up arm rests with a 76 mm wide retractable seat belt.

**Operator’s station.** The isolated operator’s station with four heavy-duty rubber mounts limits machine vibration transmitted to the operator’s station.

**Floor mat.** Rubber floor mat provides sure footing and helps further isolate the operator from machine vibration and noise.

**Steering console and gauges.** Steering console with foot-rests providing excellent operator’s comfort.

**Instrument panel.** Machine gauges are located on the adjustable front steering column for easy reference during machine operation. The instrument panel contains the fuel gauge, vibrations per minute (VPM) meter (optional) and a nine-light LED fault indication panel.

**Indication panel.** Fault indication panel is a three-level warning system to alert the operator to abnormal machine conditions with a visual warning and action alarm.

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ROPS/FOPS Cab

Optional cab can increase machine utilization and provides greater year-round comfort in extreme environment conditions.

**Cab.** The cab provides a spacious and comfortable work environment that includes large windows, more interior room with storage areas, a cup holder, better ergonomics and low noise levels.

**Visibility.** Unrestricted visibility to the drum and tire edge and to the side and rear of the machine.

**Included with cab.** Items included with cab are: two exterior rear view mirrors, two front-facing and two rear-facing working lights, front and rear windshield wipers, slide-open side windows and climate control with heater and defroster, and angled foot rests for sure footing and support when working on a grade.

**Air conditioning.** Optional air conditioning further increases operator comfort.
Open Platform with ROPS/FOPS Canopy
The platform is equipped with a ROPS/FOPS canopy and is enclosed by handrails and features angled foot rests for sure footing and support when working on a grade.

- **Working environment.** Spacious and comfortable working environment with all controls, levers, switches and gauges positioned to maximize productivity.
- **Unrestricted visibility.** Unrestricted visibility to the drum and tire edge and to the side and rear of the machine.
- **Platform enclosed by handrails.** The platform is enclosed by handrails and features angled foot rests for sure footing and support when working on a grade.
- **Standard equipment.** Standard equipment includes two front-facing and two rear-facing working lights, handrails with angled foot rests, a lockable vandalism guard and a rear view mirror.

Gradeability and Machine Control
The exclusive dual pump propel system provides superior performance, machine control and good grade climbing capability.

- **Propel pump system.** Two propel pump system has dedicated pumps to drive the heavy-duty, high-torque rear wheel and drum motors independently. Should the drum or wheels begin to spin, the non-spinning motor still receives hydraulic flow, allowing continuous tractive effort especially useful in loose underfoot conditions.
- **Controllability.** Controllability is another feature of dual propel pumps. The operator is able to stop, maintain machine position and change directions while on a grade.
- **Gradeability.** Good gradeability allows high productivity.
Sloped Hood Design
The sloped fiberglass hood design provides good service access and exceptional operator visibility.

Visibility. The visibility to the tire edges and rear of machine is exceptional. The sloped hood allows the operator to see obstacles measuring 1 meter high located 1 meter to the rear of the machine. Excellent visibility increases productivity when working near obstructions or maneuvering around the job site.

Lockable engine hood. The lockable engine hood opens quickly and easily with the use of gas struts to provide unrestricted access to the engine, cooling system and all service points.

Sound levels. Low sound levels for the operator and the ground crew due to the engine hood and revised cooling air flow through the rear mounted radiator.

Heavy Weight Option for CS533E only
The increased weight at the front provides a higher static linear load at drum.

Increased machine weight. The operating weight is approximately 1500 kg heavier than the standard CS533E. When equipped with this option the CS533E Heavy Weight competes in the 12 to 15 metric ton size class.

Larger yoke plates. The Heavy Weight option consists of a specific yoke design with larger and thicker yoke side plates.
Padfoot Shell Kit
Optional padfoot shell kit expands the application range of the CS533E to work in either cohesive or semi-cohesive material.

Versatility and utilization. Expands machine versatility and utilization while providing a simple and cost-effective solution for jobs that may require both padfoot and smooth drum compaction.

Dual-purpose bumper. It is also included with the shell kit and does not need to be removed once installed.

Bumper. It also provides adjustable scraper teeth for use with the padfoot shell kit and adjustable scraper plates for use with the standard smooth drum. When the scraper plates are not being used, they can be bolted onto the front of the bumper for convenient storage.

Padfoot shell halves. Padfoot shell halves can be quickly and easily installed or removed in about an hour with the use of an approved lifting device.

The Padfoot Shell Kit is not compatible with the Heavy Weight option.

Padfoot Drum and Scrapers
Padfoot drum provides superior performance when compacting semi-cohesive or cohesive materials.

Padfoot drum. The padfoot drum has 140 pads welded on the drum in a chevron arrangement.

Pads clean themselves. Pads are tapered to help clean themselves.

Heavy-duty scrapers. The heavy-duty scrapers mounted on the front and rear of the drum are individually adjustable and replaceable. Helps to reduce excessive material build up between the pads.
The CS533E and CP533E Soil Compactors provide exceptional reliability and serviceability that you’ve come to expect from Caterpillar.

**Reliability and Serviceability**

**Indicators.** Visual indicators allow easy check of engine coolant, hydraulic oil tank level and air filter restriction.

**Operator’s station.** The operator’s station tilts forward to allow convenient access to the hydraulic pumps.

**Cooling system.** The rear mounted cooling system provides easy access for cleaning. Hydraulic oil cooler tilts rearward for additional access to the radiator.

**Bearings.** Sealed-for-life bearings in the articulation hitch never need to be greased.

**Oil.** 500 hour engine oil change interval.

**Service interval.** 3 year/3000 hour vibratory bearing lube service interval for reduced maintenance.

**Hydraulic test.** Quick connect hydraulic test ports simplify system diagnostics.

**Ecology drains.** Ecology drains provide an environmentally safer method to drain fluids. They are included on the radiator, engine oil pan, hydraulic and fuel tank.

**Simple fluid collection.** S•O•S℠ (Scheduled Oil Sampling) ports allow for simple fluid collection of engine oil, engine coolant and hydraulic oil.

**Hose routing.** Secure hose routing with polyethylene mounting blocks to reduce rubbing and increase service life.

**All-weather connectors.** 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.

**Caterpillar batteries.** Maintenance-free Caterpillar batteries are protected by bolt-on covers in the rear of the machine on both sides. Caterpillar batteries are specifically designed for maximum cranking power and protection against vibration.

**Product Link.** The machine is Product Link wire-ready. The Caterpillar Product Link System (CPLS) ensures maximum uptime and minimum repair costs by simplifying tracking of equipment fleets. Provides automatic machine location and hour updates. Can be obtained through your local Caterpillar dealer.

The fiberglass hood tilts forward for good access to the engine and cooling system. Daily service points are accessible from ground level and are grouped on one side of the machine.
## Engine

Four-stroke, four cylinder Caterpillar 3054C turbocharged diesel engine. Meets EU directive 97/68/EC Stage II emission requirements.

**Ratings at 2200 rpm**  

<table>
<thead>
<tr>
<th></th>
<th>kW</th>
<th>hp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross power</td>
<td>97</td>
<td>130</td>
</tr>
<tr>
<td>Net power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EEC 80/1269</td>
<td>93</td>
<td>125</td>
</tr>
<tr>
<td>ISO 9249</td>
<td>93</td>
<td>125</td>
</tr>
</tbody>
</table>

Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator. No derating required up to 2500 m altitude.

**Dimensions**

- Bore: 105 mm
- Stroke: 127 mm
- Displacement: 4.4 liters

Dual-element, dry-type air cleaner with visual restriction indicator, glow plug starting aid and fuel/water separator are standard.

## Transmission

Two variable displacement piston pumps supply pressurized flow to two dual displacement piston motors. One pump and motor drives the drum propel system while the other pump and motor drives the rear wheels. The dual pump system ensures equal flow to the drive motors regardless of the operating conditions. In case the drum or wheels lose traction, the other motor can still build additional pressure to provide added torque.

The drive motors have two swashplate positions allowing operation at either maximum torque for compaction and gradeability or greater speed for moving around the job site. A rocker switch at the operator’s console triggers an electric over hydraulic control to change speed ranges.

**Speeds (forward and reverse)**

<table>
<thead>
<tr>
<th>Range</th>
<th>Speed (km/h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Range</td>
<td>8.0</td>
</tr>
<tr>
<td>High Range</td>
<td>12.0</td>
</tr>
</tbody>
</table>

Gradeability with or without vibration (subject to underfoot conditions) 50%

## Brakes

**Service brake features**

Closed-loop hydrostatic drive system provides dynamic braking during operation.

**Secondary brake features***

Spring-applied/hydraulically-released multiple disc type brake mounted on the drum drive gear reducer. Secondary brakes are activated by: a button on the operator’s console; loss of hydraulic pressure in the brake circuit; or when the engine is shut down. A brake interlock system helps prevent driving through the secondary brake.

* All machines sold within European Union are equipped with a brake release pump which allows the manual release of the secondary brake system for towing the machine.

Braking system meets EN 500.

## Steering

A priority-demand hydraulic power-assist steering system provides smooth low-effort steering. The system always receives the power it needs regardless of other hydraulic functions.

**Minimum turning radius:**

- Inside: 3680 mm
- Outside: 5810 mm

**Steering angle**  

- (each direction) ± 34°

**Oscillation angle**  

- (each direction) ± 15°

**Hydraulic system**

Two 76 mm bore, double-acting cylinders powered by a gear-type pump.

## Final Drives and Axle

Final drive is hydrostatic with gear reducer to the drum and hydrostatic with differential and planetary gear reduction to each wheel.

**Axle**

Heavy-duty fixed rear axle with a limited slip differential for smooth and quiet torque transfer.

**Tires**

- 587 mm x 660 mm (23.1” x 26”)
- CS533E: 10-ply flotation
- CP533E: 14-ply traction

Ballasted with 30-35% calcium chloride/water solution, approximately 430 liters per tire.

## Sound

**Operator Sound.** The operator sound level measured according to the procedures specified in ISO6394 is 77 dB(A), for cab offered by Caterpillar, when properly installed and maintained and tested with the doors and windows closed.

**Exterior Sound.** The labeled spectator sound power level measured according to the test procedures and conditions specified in 2000/14/EC is 111 dB(A).

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CS533E/CP533E specifications
Instrumentation

The instrument panel is located in front of the operator and features a warning system that constantly monitors various machine systems; alerts the operator if a problem does occur with a light and an audible warning horn. Warning system includes: Low Engine Oil Pressure, High Engine Coolant Temperature, High Hydraulic Oil Temperature and Low Charge System Pressure. Instrumentation also includes an Alternator Malfunction Light, Service Hour Meter and Fuel Gauge.

Operator and Machine Protective Equipment

Backup Alarm – 107 dB(A) alarm sounds whenever the machine is in reverse.

Forward Warning Horn – located on the front of machine to alert ground personnel.

Seat Belt – 76 mm wide seat belt is standard.

Electrical

The 24-volt electrical system consists of two maintenance-free Cat batteries, electrical wiring is color-coded, numbered, wrapped in vinyl-coated nylon braid and labeled with component identifiers. The starting system provides 750 cold cranking amps (cca). The system includes a 55-amp alternator.

Operating Weights

Weights shown are approximate and include lubricants, coolant, full fuel and hydraulic tanks and a 80 kg operator.

<table>
<thead>
<tr>
<th></th>
<th>*CS533E</th>
<th>**CS533E</th>
<th>CP533E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Heavy Weight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open platform</td>
<td>10 270</td>
<td>11 760</td>
<td>11 100</td>
</tr>
<tr>
<td>ROPS/FOPS canopy</td>
<td>10 480</td>
<td>12 000</td>
<td>11 320</td>
</tr>
<tr>
<td>ROPS/FOPS cab</td>
<td>10 840</td>
<td>12 360</td>
<td>11 680</td>
</tr>
<tr>
<td>Weight at Drum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open platform</td>
<td>5510</td>
<td>6780</td>
<td>6180</td>
</tr>
<tr>
<td>ROPS/FOPS canopy</td>
<td>5570</td>
<td>6840</td>
<td>6240</td>
</tr>
<tr>
<td>ROPS/FOPS cab</td>
<td>5760</td>
<td>7030</td>
<td>6300</td>
</tr>
<tr>
<td>Static Linear Load (kg/cm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open platform</td>
<td>25.8</td>
<td>31.8</td>
<td>–</td>
</tr>
<tr>
<td>ROPS/FOPS canopy</td>
<td>26.1</td>
<td>32.0</td>
<td>–</td>
</tr>
<tr>
<td>ROPS/FOPS cab</td>
<td>27.0</td>
<td>33.0</td>
<td>–</td>
</tr>
</tbody>
</table>

* Meets NFP 98736 class: VM2
** Meets NFP 98736 class: VM3

Vibratory System

Drum width 2134 mm
Drum shell thickness 25 mm
Drum diameter
  CS533E 1534 mm
  CP533E 1295 mm
Drum diameter over pads (CP533E only) 1495 mm
Pads (CP533E only)
  Number of pads 140
  Pad height 127 mm
  Pad face area 89.4 cm²
  Number of chevrons 14
Eccentric weight drive Hydrostatic
Frequency
  CS533E high/low amplitude 31/34 Hz
  CP533E 31.9 Hz
Nominal Amplitude
  CS533E high/low amplitude 1.8/0.85 mm
  CP533E high/low amplitude 1.7/0.85 mm
Centrifugal Force
  CS533E maximum/minimum 234/133 kN
  CP533E maximum/minimum 266/133 kN

Service Refill Capacities

<table>
<thead>
<tr>
<th></th>
<th>Liters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel tank</td>
<td>180</td>
</tr>
<tr>
<td>Full fuel capacity</td>
<td>200</td>
</tr>
<tr>
<td>Cooling system</td>
<td>19</td>
</tr>
<tr>
<td>Engine oil with filter</td>
<td>9</td>
</tr>
<tr>
<td>Eccentric weight housings</td>
<td>26</td>
</tr>
<tr>
<td>Axle and final drives</td>
<td>18</td>
</tr>
<tr>
<td>Hydraulic tank</td>
<td>60</td>
</tr>
<tr>
<td>Filtration system (pressure type)</td>
<td></td>
</tr>
<tr>
<td>Propel</td>
<td>15 micron absolute</td>
</tr>
<tr>
<td>Vibratory</td>
<td>15 micron absolute</td>
</tr>
</tbody>
</table>
Dimensions
All dimensions are approximate.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>CS533E (mm)</th>
<th>CP533E (mm)</th>
<th>CS533E (mm)</th>
<th>CP533E (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Overall length</td>
<td>5510</td>
<td>5510</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>B Overall width</td>
<td>2290</td>
<td>2290</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>C Drum width</td>
<td>2134</td>
<td>2134</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>D Drum shell thickness</td>
<td>25</td>
<td>25</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>E Drum diameter</td>
<td>1534</td>
<td>1295</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>F Height at ROPS/FOPS canopy</td>
<td>3060</td>
<td>3070</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>G Wheelbase</td>
<td>2900</td>
<td>2900</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>H Ground clearance</td>
<td>543</td>
<td>543</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>J Curb clearance</td>
<td>521</td>
<td>521</td>
<td>mm</td>
<td>mm</td>
</tr>
</tbody>
</table>

Total Customer Support System

**Service capability.** Most dedicated dealer support system to ensure fast service whether at the dealer’s shop or in the field by trained technicians using the latest tools and technology.

**Parts availability.** Most parts on dealer’s shelf when you need them. Computer-controlled, emergency search system backup.

**Parts stock lists.** Dealer helps you plan on-site parts stock to minimize your parts investment while maximizing machine availability.

**Literature support.** Easy-to-use parts books, operation and maintenance manuals and service manuals to help you get maximum value from your Caterpillar equipment.

**Remanufactured parts.** Pumps and motors, pod-style weight housings, engines, fuel system and charging system components available from dealer at a fraction of new part cost.

**Machine management services.** Effective preventive maintenance programs, cost-effective repair options, customer meetings, operator and mechanic training.

**Flexible financing.** Your dealer can arrange attractive financing on the entire line of Caterpillar equipment. Terms structured to meet cash flow requirements. See how easy it is to own, lease or rent Cat equipment.
### Estimated Production

<table>
<thead>
<tr>
<th>Depth mm</th>
<th>Density %</th>
<th>150 mm Layer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface</td>
<td>0-500</td>
<td>&gt;98</td>
</tr>
<tr>
<td>Shallow</td>
<td>500-3000</td>
<td>95-98</td>
</tr>
<tr>
<td>Deep</td>
<td>&gt;3000</td>
<td>90-95</td>
</tr>
</tbody>
</table>

Based on depth of fill below final grade (surface)
Based on final compacted thickness of layer
Density spec. is based on Standard Proctor Test

### Productivity Comparisons

<table>
<thead>
<tr>
<th>Cubic Meters Per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>650</td>
</tr>
<tr>
<td>600</td>
</tr>
<tr>
<td>550</td>
</tr>
<tr>
<td>500</td>
</tr>
<tr>
<td>450</td>
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<tr>
<td>400</td>
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<td>350</td>
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<tr>
<td>300</td>
</tr>
<tr>
<td>250</td>
</tr>
<tr>
<td>200</td>
</tr>
<tr>
<td>150</td>
</tr>
<tr>
<td>100</td>
</tr>
</tbody>
</table>

% Compaction of Standard Proctor
150 mm Crushed Limestone Base
Results are similar for padfoot drums.
Results may vary for different applications.

### Machine Selection

<table>
<thead>
<tr>
<th>Application</th>
<th>Layer Thickness mm</th>
<th>Smooth Drum CS533E</th>
<th>Padfoot Drum CP533E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand, Clayey or Silty Sand, Mine Tailing</td>
<td>150-300 300-450</td>
<td>●</td>
<td>□</td>
</tr>
<tr>
<td>Clay, Sandy or Silty Clay, Stabilized Clay</td>
<td>150-300 300-450</td>
<td>▲</td>
<td>●</td>
</tr>
<tr>
<td>Silt, Sandy or Clayey Silt, Coal, Ash, Solid Waste</td>
<td>150-300 300-450</td>
<td>▲</td>
<td>□</td>
</tr>
<tr>
<td>Base Aggregate, Gravel, Crushed Rock, Stabilized Base</td>
<td>150-300 300-450</td>
<td>▲</td>
<td>□</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Pads</th>
<th>Shell Kit</th>
<th>Shell Kit Performance</th>
<th>Performance Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Padfoot Drum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pad Height</td>
<td>127 mm</td>
<td>90 mm</td>
<td></td>
</tr>
<tr>
<td>Weight at Drum</td>
<td>6240 kg</td>
<td>6990 kg</td>
<td></td>
</tr>
<tr>
<td>Max. Amplitude</td>
<td>1.7 mm</td>
<td>1.2 mm</td>
<td></td>
</tr>
</tbody>
</table>

The CS533E and CP533E vibratory soil compactors provide high compaction performance. Ideal for medium to large construction projects with low to moderate grades.

### Shell Kit Performance

<table>
<thead>
<tr>
<th>Padfoot Drum</th>
<th>Shell Kit</th>
<th>Shell Kit Performance</th>
<th>Performance Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Pads</td>
<td>140</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>Pad Height</td>
<td>127 mm</td>
<td>90 mm</td>
<td></td>
</tr>
<tr>
<td>Weight at Drum</td>
<td>6240 kg</td>
<td>6990 kg</td>
<td></td>
</tr>
<tr>
<td>Max. Amplitude</td>
<td>1.7 mm</td>
<td>1.2 mm</td>
<td></td>
</tr>
</tbody>
</table>
Optional Equipment
Optional equipment may vary. Consult your Caterpillar dealer for specifics.

Roll Over Protective Structure/Falling Object Protective Structure (ROPS/FOPS) canopy is a two-post structure that bolts directly onto flanges welded to the operator platform. Includes two front-facing and two rear-facing working lights, handrails and a rear view mirror. The structure meets ISO 3449-1992 and ISO 3471-1994.

ROPS/FOPS Cab includes a cloth suspension seat, one access door, tinted safety glass windows, electric wipers front and rear, heater/defroster, two vertically sliding side windows for ventilation, two exterior rear view mirrors, two front-facing and two rear-facing working lights, interior dome light. Cab can be ordered with or without air conditioning. Cab is fully EROPS rated and meets ISO 3449-1992 and ISO 3471-1994.

Sun Visor for the front windshield can be installed on machines equipped with a ROPS/FOPS cab.

Sun Canopy. Non-ROPS sun canopy for use with open platform.

Roll-Down Sun Screen for the rear window can be installed on machines equipped with a ROPS/FOPS cab.

Rear View Mirrors are available for internal use on machines equipped with a ROPS/FOPS cab or external use on machines equipped with a ROPS/FOPS canopy.

Transmission Guard consists of a heavy plate which covers the rear axle, axle drive motor and input gearbox.

Cab Lift Cylinder is available and provides a hydraulic cylinder to raise and lower the operator’s platform or cab.

Vibratory Gauge is mounted on the console in front of the operator and displays the actual vibratory system frequency. (Standard with the variable frequency option.)

Rotating Beacon includes an amber beacon and mount that can be attached to machines with ROPS/FOPS canopy or ROPS/FOPS cab.

Polyurethane Drum Scrapers for the CS533E provide a front and rear scraper for continuous contact with the drum surface and replaces the standard steel front scraper.

Two-piece Padfoot Shell Kit bolts onto the smooth drum CS533E and features 90 mm high pads. Includes special bumper. The Padfoot Shell Kit is not compatible with the Heavy Weight option.

Smooth Drum Rear Steel Scraper mounted at the rear of the drum.

Padded Drum Rear Scrapers help keep material from building up on the drum.

Speedometer

Recording Module provides a visual gauge for reading worktime, machine speed, distance covered and amplitude selection.

Compaction Indicator CI 010 includes LED panel indicating compaction level with integrated LCD screen displaying travel speed and compaction meter value. Also includes hand-held printer.

Compactiometer ALFA 022R includes compaction meter value dial, frequency meter dial and resonance meter value dial.

Padded Drum Conversion Kit (CS533E only) is interchangeable with the smooth drum, it includes all drum components including hydraulic motor, brackets, gear and support boxes, shell, mounts, brackets and pods, front bumper and scrapers.

Smooth Drum Conversion Kit (CP533E only) is interchangeable with the padded drum, it includes all drum components including hydraulic motor, brackets, gear and support boxes, shell, mounts, brackets and pods, front bumper and scrapers. Not compatible with Heavy Weight option.

Spare Tire with Rim is available for both the flotation tread and the traction tread.

Heavy Weight for CS533E only. Specific yoke design increases the machine weight by approximately 1500 kg. When equipped with this option, the CS533E competes in the 12-15 metric ton size class.