<table>
<thead>
<tr>
<th>Operating Specifications</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payload Capacity</td>
<td>Overall Length (with bucket)</td>
</tr>
<tr>
<td>9.1 tonnes</td>
<td>8760 mm</td>
</tr>
<tr>
<td>864 mm (and above)</td>
<td>28 ft 9 in</td>
</tr>
<tr>
<td>Operating Height</td>
<td>Overall Width (at bucket)</td>
</tr>
<tr>
<td>34 in (and above)</td>
<td>2920 mm</td>
</tr>
<tr>
<td>Power Type</td>
<td>9 ft 7 in</td>
</tr>
<tr>
<td>Battery</td>
<td></td>
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</table>

**SU488 L Scoop**
SU488 L Features

Flexible
Cat® Scoops come in a variety of sizes and shapes, with both diesel and battery drive options and a number of attachments to meet any need. With a system allowing for speedy conversion between tools, a single machine can meet multiple needs.

Productive
With payload capacities ranging from 4.5 tonnes (5.0 tons) to 22.7 tonnes (25 tons), these hard-working machines can keep up with strict productivity demands no matter what needs to be hauled.

Durable
A heavy-duty center section provides superior stability in tough conditions through ball-bearing oscillation. A robust pivot section eliminates the problems of three-point-hitch oscillation. High-strength, low-alloy steel bearing attachment faces and high-quality welds further increase reliability.

Safety-Focused
The operator’s compartment is designed with safety in mind, both for the operator and workers around the machine. Good visibility and ergonomic controls keep the operator alert and aware of surroundings while a durable frame and cover protect the operator from hazardous conditions.

Environmentally Responsible
Cat battery-powered scoops do not burden the mine’s ventilation with emissions or heat. Due to infinitely variable power control, they are the ideal vehicle for working an area with limited ventilation.

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With over 40 years’ experience and over 6,500 battery-powered units produced, the Cat Scoop is the obvious choice for a low-maintenance, high-productivity utility vehicle. These battery-powered mining machines are setting the pace in efficient and reliable underground utility vehicles. The SU488 L is one of the strongest and most rugged low-profile scoop ever built.
Control System
Controlled Productivity

We have led the way in increasing the productivity of battery powered mining equipment. Our control system eliminates commutating coils and capacitor banks and is able to provide a microprocessor-based motor controller. Using the dash-mounted diagnostic display and the handheld calibrator/diagnostic unit, difficulties can be overcome in short order.
The Cat HiPAC 10 is a DC to AC variable-frequency inverter control that drives high-performance AC electronic motors, which have a superior speed-torque characteristics. It is up to 14% more efficient than traditional DC motors. This means higher loaded tram speeds, more responsive hydraulic functions and more work per battery charge.

Drive Technology
High-performance AC power for more efficiency
The scoop is equipped with a 37.3 kW (50 hp), 110V DC, class H insulation series wound traction motor. An optional 74.6 kW (100 hp) AC tram motor is available with the HiPAC 10 VFD Control System.
All Cat utility scoops feature large hydraulic fluid reservoirs for maximum cooling capacity. Each reservoir is equipped for easy fluid-level monitoring. The machines are provided with 10-micron return line filtration and a magnetic particle sump strainer. For long life and dependability, the main implement pumps are helical gear, fixed displacement.

Dash-mounted gauges provide the operator with continuous monitoring of the status of the hydraulic system. An optional 35 kW (47 hp) AC pump motor with HiPAC 10 VFD Control System is available.
With options and features like full inboard planetary axles and bulletproof outboard and hub-end planetary axles, the Cat scoop is the right combination for any application. For unparalleled speed and maximum reliability, the SU488 L offers dual 37.3 kW (50 hp) tram motors.
Axle Diff-Lock
4-wheel drive on-demand

Four-wheel drive for when conditions get tough, planetary axles with wet disc service brakes, helical, parallel gearbox, spring applied, hydraulically-released parking brakes and other features all combine to provide rock climbing gradeability.

With the ability to engage a battery from below grade, and to vary the ground clearance of the battery in undulating conditions, the Cat scoop is able to thrive in varying mining environments.
To provide superior stability in tough conditions, the scoop offers ball bearing oscillation. The problems associated with three-point-hitch style oscillation are eliminated with the robust design of the pivot section. High-strength, low-alloy steel bearing attachment faces and quality ANSI/AWS welding help provide the reliability that our customers demand. The articulation joint features hardened spherical bushings to ensure even load distribution to the high-strength, hardened articulation pins.
For long-shift productivity, operator comfort is paramount for maintaining a safe working environment. At Caterpillar, ergonomics is not just another marketing buzzword. Controls are placed in a logical, easy-to-reach position and are easily operated from the fully padded, adjustable seat.
Safety
Designed with safety as top priority

All Cat battery-powered face haulers and scoops are designed with safety and productivity as number one priorities. The scoop safety features include:

- Panic strips in the operator’s compartment
- Emergency stop buttons
- Fire suppression (automatic or manual activation) on both sides of the machine
- Steering lockout
- Proximity detection (on request)
- Spring applied, hydraulic release brakes
- Two key start functions
- Warning gongs
- Start up audible alarms (optional)
- Canopy over operator’s compartment
SU488 L Scoop Specifications

### Weights

<table>
<thead>
<tr>
<th>Scoop Utility Empty Weights</th>
<th>Less Battery</th>
<th>12,700 kg</th>
<th>28,000 lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>With 64-SS55-21 Battery</td>
<td>16,220 kg</td>
<td>35,750 lb</td>
<td></td>
</tr>
<tr>
<td>With 64-SS85-21 Battery</td>
<td>19,277 kg</td>
<td>42,500 lb</td>
<td></td>
</tr>
</tbody>
</table>

### Speed

| Tram Speed | 8 km/h | 5 mph |

### Lift and Carry Capacity

9.1 tonnes (10 tons) at 1220 mm (48 in) from bucket mounting pin

### Drive Train

**Tram Motor**
- One proprietary design, mine traction, direct current, gear motor rated at 37 kW/50 hp (1 hour) at 1,540 rpm and 110 Volts; MSHA totally enclosed explosion proof; non-ventilated cooling; foot mounted

**Reducer**
- A foot mounted 3.33:1 ratio gearbox

**Drive Lines**
- Heavy duty off-highway, 7C type driveshafts with slip joints

**Axles**
- Heavy duty axles. Features outboard planetary, SAHR brakes, brake cooling and optional Diff-Lock

*Alternate axles will be considered upon request*

### Brakes

**Service and Emergency/Park**
- Spring applied hydraulic release SAHR
- 4-wheel wet disc
- Left pedal activated
- Controlled by reverse modulating valve

### Fire Suppression

Four point, 9 kg (20 lb), multi-purpose, ABC dry chemical fire suppression system manually actuated from operator’s compartment and remote location.

### Frame

Heavy duty with bends utilized where applicable to reduce the number of indeterminate stresses introduced by welding; constructed of ASTM 572-GR50 steel with T-1 steel at high stress or wear areas.

### Center Section

Heavy duty ball bearing with unlimited oscillation; internal grease seals to prevent contamination of the ball bearings, and pivot points designed to distribute loads using self-aligning, one piece heavy duty radial bearings.

### Hydraulics

**Pump Motor**
- Mine duty, laminated frame, direct current motor rated at 12 kW/16 hp (1 hour); 110 Volts DC; MSHA totally enclosed explosion proof; non-ventilated cooling; and foot mounted.

**Pump**
- Fixed displacement, helical gear tautum pumps rated at 91 total L/min (24 total gal/min) at 1,600 rpm. Pump is directly mounted to the pump motor housing.

**Reservoir**
- 132 L (35 gal) capacity with magnetic particle sump strainer and 10 micron return line filter with by-pass. A dipstick is provided in the top of the oil tank for oil level monitoring.

**Reservoir Fill System**
- Fill cap assembly in top of reservoir tank.

**Valve Bank**
- Five section, parallel (flow through) type with 15.5 MPa (2,250 psi) internal relief and 11.7 MPa (1,700 psi) steering relief. Valve bank is rated at 151 L/min (40 gal/min).

**Hydraulic PTO**
- Two (2) quick coupler connections, 8.27 MPa (1,200 psi) maximum recommended operating pressure.

**Steering Cylinder**
- Two (2) 127 mm (5 in) bore, double acting cylinders with forged rods and self-aligning bearings.

**Lift Cylinder**
- Two (2) 152 mm (6 in) bore, double acting cylinders with forged rods and self-aligning bushings.

**Hydraulic Hose and Fittings**
- JIC fittings with high pressure hosing; MSHA 2G flame resistant approved.
**SU488 L Scoop Specifications**

### Operator's Compartment

**Extended Operator's Deck**
- Control Station Which Houses the Master Switch for Park, Forward and Reverse; Light Switch for Front and Rear Lights; Pump Motor Start Button and Automatic Park Brake Release
- Right Foot Accelerator Pedal
- Left Foot Brake Pedal
- Tape Strip Panic Switch that De-energizes Electrical System and Applies Automatic Brake
- Warning Gong
- Manual Circuit Breaker Lever Re-set Handle
- Valve Bank Hydraulic Functions: Steering, Bucket, Bucket Eject, Winch/Power Take Off, Battery Changer

### Electrical Controls

**Model BUC2000**, microprocessor controlled, IGBT, contactorless, 128V DC, 1,200 amp traction motor controller, with infinitely variable, stepless, machine speed control, equipped with on-board dashboard display for machine information of battery capacity, battery voltage, motor currents, elapsed time hour meter, and troubleshooting diagnostics information.

Microprocessor controlled, IGBT, contactorless, 128V DC, 350 amp, pump motor controller, limits starting current, and provides LED based diagnostics.

Mine duty, 600 amp frame circuit breaker, with UVR (under voltage release) trip unit.

### Manuals

- Two Parts Manuals
- Two Operation and Preventive Maintenance Manuals
- Two Electrical Troubleshooting Guides
- Two Battery Maintenance Manuals
- Two Battery Maintenance Charts
- One LinkOne CD which includes all above manuals in electronic format

### Operator's Compartment Option

- 533 mm (21 in) deck extension to provide better visibility in the lower seams. Diff-Lock- hydraulically activated differential lock that allows all four wheels to have equal torque during difficult floor conditions. The Diff-Lock is activated by a floor mounted, foot operated push button.

### Tire/Wheel Option

- 28×15-15 Tires – Customer specified tire brand and fill type.
- 35×15-15 Tires – Customer specified tire brand and fill type.

### Operator Control Options

- Left hand control stick that incorporates the most common operator functions.
- Ergonomically designed control stick for one-hand control of pump motor, park brake, travel direction, traction assist, stop/shutdown and headlight controls.
- Tapeswitch stop switches located on both sides of operator.
- Manual Disconnect Switch.

### Battery Plug – Single Connector Option

- J&R 2000, 5-pole, Brass with Captive Wrench – brass plug with a captive wrench to install or remove the battery plugs.
- Battery plug is rated at 600 amps.
- Other connector options available upon request.

### Lighting System Option

- Ocenco, Halogen, 12V DC, 50 watt – two front headlights with protective guard, and two rear headlights with protective guard.
- MCI 120V
- MCI 12V

### Center Section Cable Location Option

- All cables over the top of center section. Cables are protected with additional guarding and covers. This will add 76 mm (3 in) to overall frame height.

### Auxiliary Components

- Battery Change Cables
## Machine Battery
- Battery Tray
- Battery with Plastisol Coated Tray (Single Connector)
- Battery Receptacle Kit
- Battery Filling System

## Battery Charger Options
- Single Output for One Battery
- Dual Output for Two Batteries

## Battery Charger Accessories
- Heavy Duty Charger Case: Sled consisting of heavy duty, protection frame work and equipped with lifting mechanisms designed to be engaged by the optional QDS Lift System.

## Other Options
- Schroder Test Mate
- PA Approval Kit
- Park Brake Pressure Switch
- Center Section Lock Bar
- Venturi Jet Fill
- Traction Motor Over Speed Protection
- BUC 2000 Hand Held Calibrator (Control Adjustments and Troubleshooting)
# SU488 L Scoop Specifications

## Dimensions

All dimensions are approximate.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>With Bucket</th>
<th>28 ft 9 in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Length</td>
<td>8760 mm</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overall Width</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>At Bucket</td>
<td>2920 mm</td>
<td>9 ft 7 in</td>
</tr>
<tr>
<td>At 533 mm (21 in) Extended Deck</td>
<td>3175 mm</td>
<td>10 ft 5 in</td>
</tr>
</tbody>
</table>

| Wheelbase                              | 3710 mm     | 12 ft 2 in |

| Battery Height from Ground with 64-SS55-21 Battery | 28×15-15 Tires | 710 mm | 2 ft 4 in |
| Battery Height from Ground with 64-SS85-21 Battery | 32×15-15 Tires | 760 mm | 2 ft 6 in |
| Battery Height from Ground with 64-SS85-21 Battery | 35×15-15 Tires | 860 mm | 2 ft 10 in |

| Ground Clearance (No Axle Spacers)      | 28×15-15 Tires | 200 mm | 8 in |
|                                        | 32×15-15 Tires | 240 mm | 9.5 in |
|                                        | 35×15-15 Tires | 280 mm | 11 in |

| Minimum Canopy Height                   | 28×15-15 Tires | 1120 mm | 44 in |
|                                        | 32×15-15 Tires | 1155 mm | 45.5 in |
|                                        | 35×15-15 Tires | 1190 mm | 47 in |

| Main Frame Height                       | 28×15-15 Tires | 710 mm | 28 in |
|                                        | 32×15-15 Tires | 760 mm | 30 in |
|                                        | 35×15-15 Tires | 800 mm | 31.5 in |

| Overall Width of Headlight Covers       | 2743 mm       | 9 ft    |
|                                        | 2438 mm       | 8 ft    |

| Overall Width of Battery                | 381 mm        | 15 in   |
|                                        | 254 mm        | 10 in   |

| Clearance of Headlight Cover to Outside of Operator Cab | 381 mm | 15 in |
| Clearance of Bucket to Outside of Operator Cab        | 254 mm | 10 in |
| Bottom of Frame to Top of Frame                     | 508 mm | 1 ft 8 in |
| Bottom of Frame to Top of Bucket                     | 533 mm | 1 ft 9 in |
| Inside Turn Radius                                   | 3660 mm | 12 ft 0 in |
| Outside Turn Radius                                  | 7315 mm | 24 ft 0 in |

| Steering Articulation – Total                     | 80°           | 80°      |

Detailed GA drawings available for specific dimensions and component locations.

SU488 L Scoop