



Cat[®] SU488 L

SCOOP

Specifications

Weights

Scoop Utility Empty Weights		
Less Battery	12 700 kg	28,000 lb
With 64-SS55-21 Battery	16 220 kg	35,750 lb
With 64-SS85-21 Battery	19 277 kg	42,500 lb

Speed

Tram Speed	8 km/h	5 mph
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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; nonventilated 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
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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 tantum 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

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
System Pressure Gauge
Accumulator Pressure Gauge
Park Brake Release Pressure Gauge

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

28x15-15 Tires – Customer specified tire brand and fill type.
32x15-15 Tires – Customer specified tire brand and fill type.
35x15-15 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

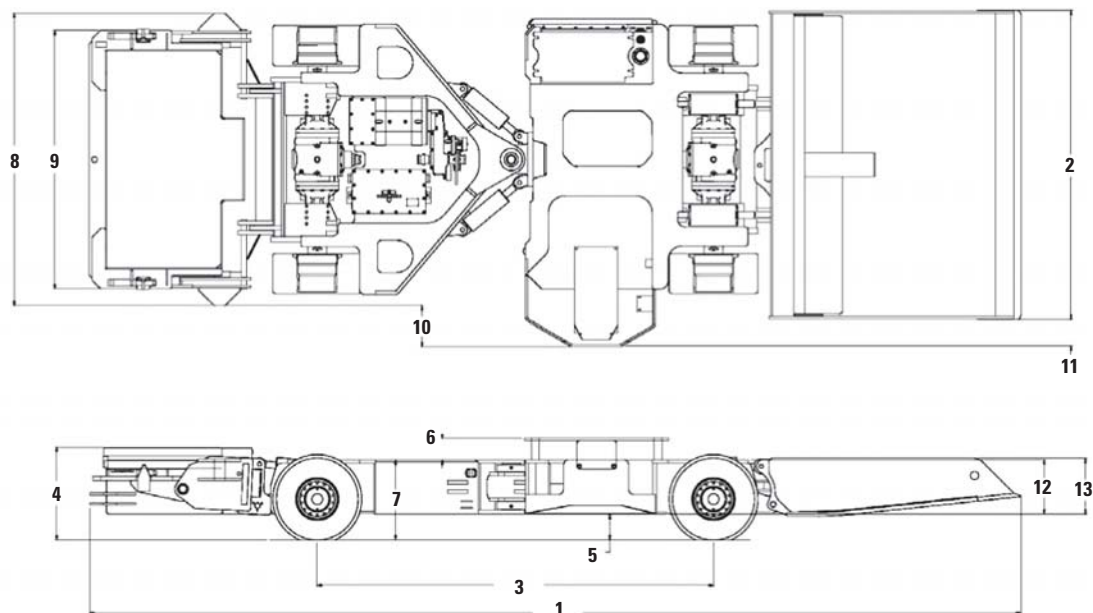
Single Output for One Battery
Dual Output for Two Batteries

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.
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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)



Dimensions (all dimensions are approximate)

1 Overall Length			
With Bucket		8760 mm	28 ft 9 in
2 Overall Width			
At Bucket		2920 mm	9 ft 7 in
At 533 mm (21 in) Extended Deck		3175 mm	10 ft 5 in
3 Wheelbase		3710 mm	12 ft 2 in
4 Battery Height from Ground with 64-SS55-21 Battery	28×15-15 Tires	710 mm	2 ft 4 in
	32×15-15 Tires	760 mm	2 ft 6 in
Battery Height from Ground with 64-SS85-21 Battery	32×15-15 Tires	860 mm	2 ft 10 in
	35×15-15 Tires	910 mm	3 ft 0 in
5 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
6 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
7 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
8 Overall Width of Headlight Covers		2743 mm	9 ft
9 Overall Width of Battery		2438 mm	8 ft
10 Clearance of Headlight Cover to Outside of Operator Cab		381 mm	15 in
11 Clearance of Bucket to Outside of Operator Cab		254 mm	10 in
12 Bottom of Frame to Top of Frame		508 mm	1 ft 8 in
13 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.
Shown with 32×15-15 Tires and 85-21 Batteries.

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AEHQ6758 (09-12)

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