



Cat® SU488 DM

SCOOP

Specifications

Dimensions (Approximate. Will vary based on configuration.)

Overall Length		
Standard with Bucket	9931 mm	32'7"m
VLT with Lifting Forks	9576 mm	31'5"
VLT with Contoured Bucket	10 439 mm	34'3"
VLT with Lift Plate Attachment	9881 mm	32'5"
Overall Width		
Standard with Bucket	2819 mm	9'3"
VLT with Contoured Bucket	3037 mm	10'1"
Wheelbase	4699 mm	15 ft 5 in
Un-A-Trac Empty Weights		
Less Battery	19 731 tonnes	43,500 lb
With 64-SS85-21 Battery	24 857 tonnes	54,800 lb
With 64-SS100-21 Battery	26 853 tonnes	59,200 lb
Battery Height from Ground		
With 64-SS85-21 Battery		
35×15-15 Tires	914 mm	36 in
38×16-15 Tires	965 mm	38 in
44×18-20 Tires	1016 mm	40 in
With 64-SS100-21 Battery		
35×15-15 Tires	990 mm	39 in
38×16-15 Tires	1067 mm	42 in
44×18-20 Tires	1118 mm	44 in
With 64-SS125-21 Battery		
35×15-15 Tires	1041 mm	41 in
38×16-15 Tires	1067 mm	42 in
44×18-20 Tires	1118 mm	44 in
Ground Clearance (Nominal)		
(Please reference sales drawing for Ground Clearance profile)		
35×15-15 Tires	279 mm	11 in
38×16-15 Tires	305 mm	12 in
44×18-20 Tires	356 mm	14 in
Adjustable Cab Height		
35×15-15 Tires	1270 mm-1524 mm	4 ft 2 in-5 ft 0 in
38×16-15 Tires	1295 mm-1549 mm	4 ft 3 in-5 ft 1 in
44×18-20 Tires	1346 mm-1600 mm	4 ft 5 in-5 ft 3 in
Main Frame Height		
35×15-15 Tires	899 mm	2 ft 11 in
38×16-15 Tires	914 mm	3 ft 0 in
44×18-20 Tires	965 mm	3 ft 2 in
Tram Speed	8 km/h	5 mph

Lift Capacity

14.5 tonnes (16 tons) at 914 mm (36 in) from the face of lift plate

Drive Train

Tram Motor	Two 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 4.58:1 ratio gearbox
Drive Lines	Heavy duty off-highway 7C type driveshafts with slip joints
Axles	Heavy Duty Bucyrus Proprietary 35 834 tonnes (79,000 lb) capacity axle Features outboard planetary SAHR brakes Brake cooling Optional Dif-Lok

* 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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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 Foot mounted
Pump	Fixed displacement Helical gear tantum pumps rated at 91 L/m (24 total gpm) at 1,600 rpm Pump is directly mounted to the pump motor housing.
Reservoir	189 L (50 gal) capacity with magnetic particle sump strainer and 10 micron return line filter with by-pass. A dipstick is provide in the top of the oil tank for oil level monitoring.
Reservoir Fill System Valve Bank	Fill cap assembly in top of reservoir tank. Six section, parallel (flow through) type with 15 513 MPa (2,250 psi) internal relief and 8274 MPa (1,200 psi) steering relief. Valve bank is rated at 15 L/m (40 gpm)
Hydraulic PTO	Two (2) quick coupler connections, 8274 MPa (1,200 psi) maximum recommended operating pressure.
Steering Cylinder	Two (2) 5 in bore, double acting cylinders with forged rods and self-aligning bearings.
Lift Cylinder	Two (2) 7 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

Fire Suppression

Four point, 0.01 tonnes (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; extended operator's deck with side egress access.

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.

Operator's Compartment

1. Extended Operator's Deck
2. 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
3. Right Foot Accelerator Pedal
4. Left Foot Brake Pedal
5. Tape Strip Panic Switch that De-Energizes Electrical System and Applies Automatic Brake
6. Warning Gong
7. Manual Circuit Breaker Lever Re-Set Handle
8. Valve Bank Hydraulic Functions
 - Steering
 - Bucket
 - Bucket Eject
 - Winch/Power Take Off
 - Battery Changer
9. System Pressure Gauge
10. Accumulator Pressure Gauge
11. Park Brake Release Pressure Gauge

Electrical Controls

1. Model BUC2000, microprocessor controlled, IGBT, contactorless, 128V DC, 1200 amp traction motor controller, with infinitely variable, step less, machine speed control, equipped with on-board dashboard display for machine information of battery capacity, battery voltage, motor currents, elapsed time hour meter, and trouble shooting diagnostics information.
2. Microprocessor controlled, IGBT, contactorless, 128V DC, 350 amp, pump motor controller, limits starting current, and provides LED based diagnostics.
3. 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 Guide
Two Battery Maintenance Manual
Two Battery Maintenance Chart
One LinkOne CD which includes all above manuals in electronic format

Operator's Compartment Options

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

Tire/Wheel Option

35×15-15 Tires – Customer specified tire brand and fill type.
38×16-15 Tires – Customer specified tire brand and fill type.
44×18-20 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. Speed control accomplished by right foot activated pedal.

Tapeswitch stop switches located on both sides of operator.

Manual Disconnect Switch

Lift Attachment Option

QDS Quick Attach Module (required for all QDS attachments)

QDS Fork Assembly

QDS Battery carrier

Winch Option

Winch – 13 608 kg (30,000 lb) bare drum pull, two speed winch assembly with 21 363 mm (70 ft) of $\frac{3}{4}$ in diameter steel cable. Requires operator cab in lieu of canopy.

Cab Options (cab must be utilized when winch is selected)

Manual

Hydraulic

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

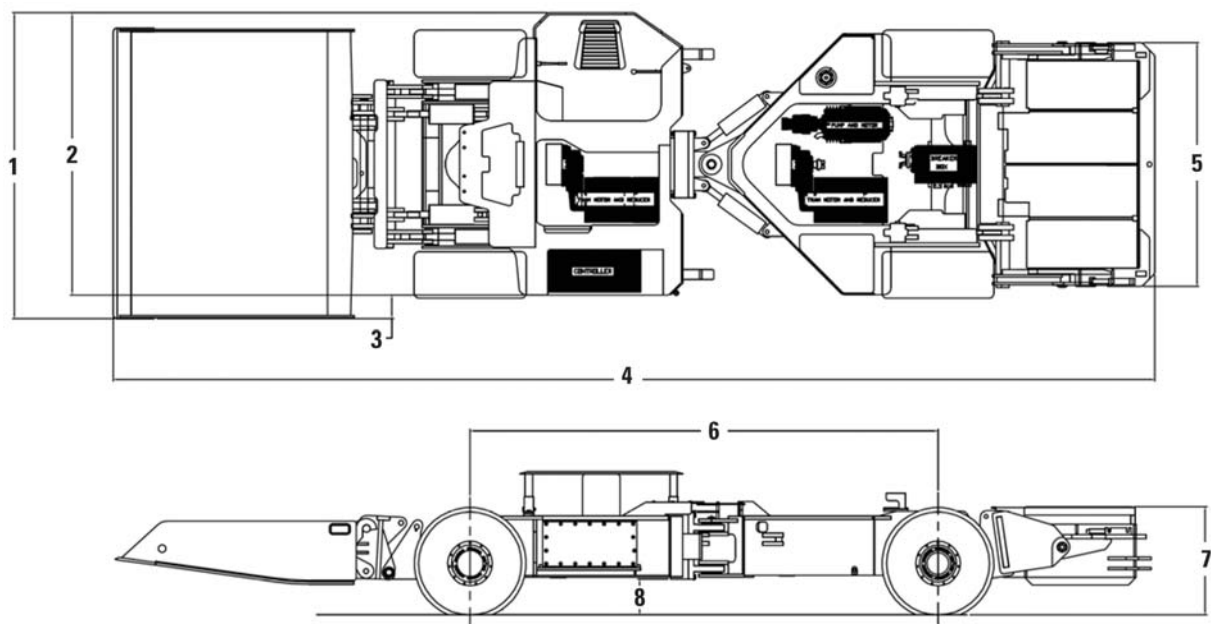
Center Section Lock Bar

Venturi Jet Fill

Traction Motor Over Speed Protection

BUC 2000 Hand Held Calibrator (Control Adjustments and Troubleshooting)

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Dimensions (all dimensions are approximate)

1 Overall Width	3049 mm	10 ft 0.5 in
2 Overall Width of Operator Cab	2819 mm	9 ft 3 in
3 Clearance of Bucket to Outside of Operator Cab	241 mm	9.5 in
4 Overall Length	10 426 mm	34 ft 2.5 in
5 Overall Width of Battery	2438 mm	8 ft
6 Wheelbase	4686 mm	15 ft 4.5 in
7 Battery Height from Ground with 64-SS85-21 Battery	1016 mm	40 in
8 Ground Clearance	355 mm	1 ft 2 in
Inside Turn Radius	3835 mm	12 ft 7 in
Outside Turn Radius	7366 mm	24 ft 2 in
Steering Articulation – Total	80° total	

Detailed GA drawings available for specific dimensions and component locations.
Shown with 44×18-20 Tires and a 64-SS85-21 Battery.