Cat®
SU488 DM

Scoop

Specifications

Dimensions (approximate. Will vary based on configuration)	
Overall Length	
Standard with bucket	32'7"
VLT with lifting forks	31'5"
VLT with contoured bucket	34'3"
VLT with lift plate attachment	32'5"
Overall Width	
Standard with Bucket	9'3"
VLT with contoured bucket	10'1"
Wheelbase	15 ft 5 in
Un-A-Trac Empty Weights:	
Less Battery	43,500 lbs.
With 64-SS85-21 Battery	54,800 lbs.
With 64-SS100-21 Battery	59,200 lbs.
Battery Height from Ground	
With 64-SS85-21 Battery	
35X15-15 Tires	36 in
38X16-15 Tires	38 in
44X18-20 Tires	40 in
With 64-SS100-21 Battery	
35X15-15 Tires	39 in
38X16-15 Tires	42 in
44X18-20 Tires	44 in
With 64-SS125-21 Battery	
35X15-15 Tires	41 in
38X16-15 Tires	42 in
44X18-20 Tires	44 in
Ground Clearance (Nominal) (Please reference sales drawing for Ground Clearance profile)	
35X15-15 Tires	11 in
38X16-15 Tires	12 in
44X18-20 Tires	14 in
Adjustable Cab Height	
35X15-15 Tires	4 ft 2 in - 5 ft 0 in
38X16-15 Tires	4 ft 3 in - 5 ft 1 in
44X18-20 Tires	4 ft 5 in - 5 ft 3 in

Dimensions (continued)	
Main Frame Height	
35X15-15 Tires	2 ft 11 in
38X16-15 Tires	3 ft 0 in
44X18-20 Tires	3 ft 2 in
Inside turn radius	12 ft 7 in
Outside turn radius	24 ft 2 in
Steering articulation	80° total
Tram Speed	5 mph

Lift Capacity
16 tons at 36 in from the face of lift plate

Drive Train

Tram Motor

Two proprietary design

Mine traction

Direct current

Gear motor rated at 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

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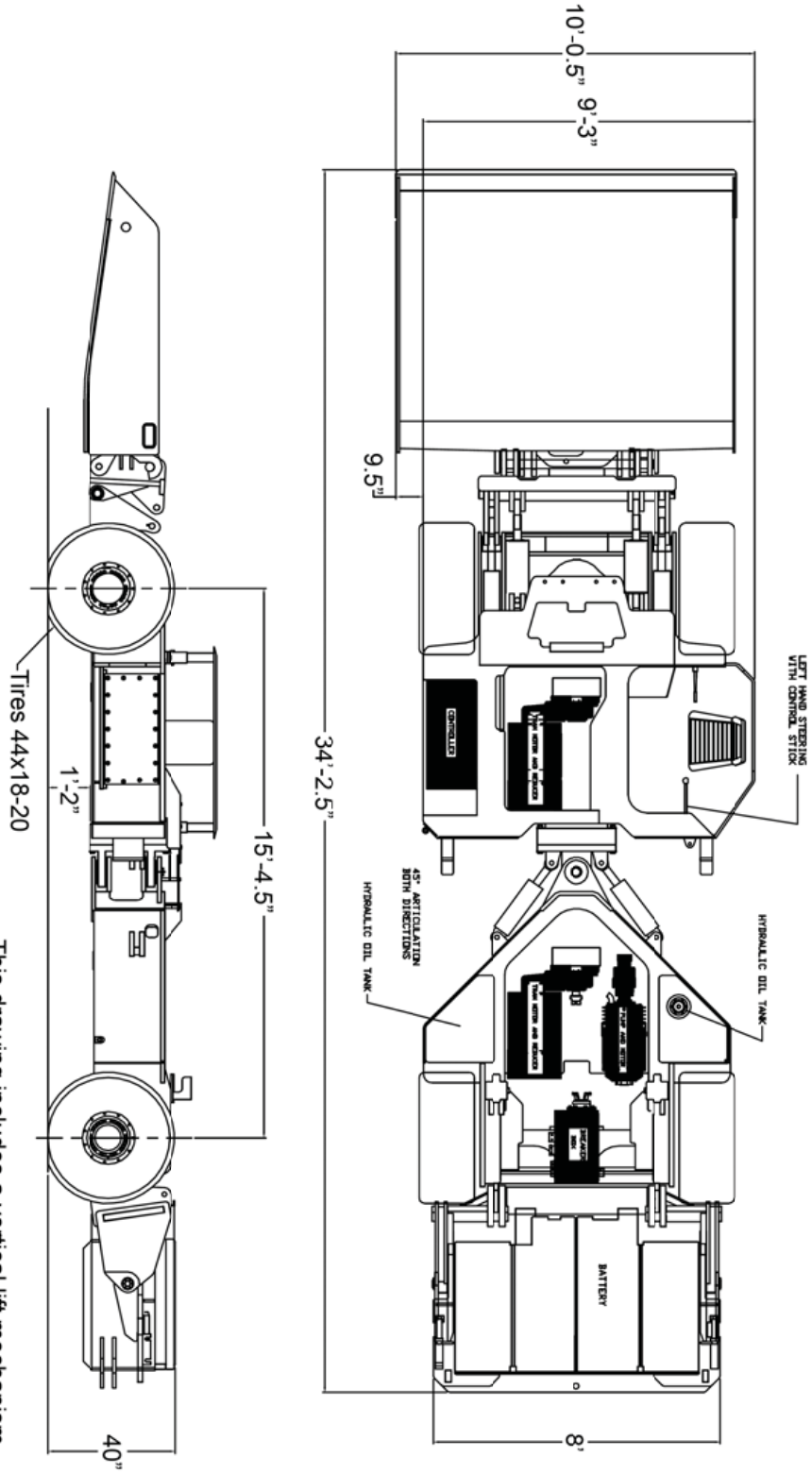

This drawing includes a vertical lift mechanism.
Shown with a 64-SS85-21 battery.

**Detailed GA drawings available for specific dimensions and component locations*

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Drive Train (continued)

Axles

Heavy Duty

Bucyrus Proprietary

79,000 lbs capacity axle

Features outboard planetary

SAHR brakes

Brake cooling

Optional Dif-Lok

**Alternate axles will be considered upon request*

Brakes

Service & Emergency/Park

Spring applied hydraulic release SAHR

4-wheel wet disc

Left pedal activated

Controlled by reverse modulating valve

Hydraulics

Pump Motor

Mine duty

Laminated frame

Direct current

Motor rated at 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 24 total gpm at 1,600 rpm

Pump is directly mounted to the pump motor housing.

Reservoir

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

Fill cap assembly in top of reservoir tank.

Valve Bank

Six section, parallel (flow through) type with 2,250 psi internal relief and 1,200 psi steering relief. Valve bank is rated at 40 gpm

Hydraulic PTO

Two (2) quick coupler connections, 1,200 psi maximum recommended operating pressure.

Hydraulics (continued)

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

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Fire Suppression

Four point, 20 lbs, 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, 128VDC, 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, 128VDC, 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

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

35X15-15 Tires – Customer specified tire brand and fill type.

38X 16-15 Tires – Customer specified tire brand and fill type.

44X18-20 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 onehand 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

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Lift Attachment Option

QDS Quick Attach Module (required for all QDS attachments)

QDS Fork Assembly

QDS Battery carrier

Winch Option

Winch - 30,000 lb. bare drum pull, two speed winch assembly with 70 ft of ¾ 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 w/Captive Wrench

Brass plug with a captive wrench to install orremove the battery plugs. Battery plug is rated at 600 amps.

Other connector options available upon request

Lighting System Option

Ocenco, Halogen, 12VDC, 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 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

All specifications are subject to change without notice.

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at **mining.cat.com** and **www.cat.com**

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