

# BREAKERBOSS MOBILE ROCK BREAKERS





# MOBILE ROCK BREAKERS

## Keep Ore Flowing

When ore stops flowing, so do profits. Even with dedicated efforts to control oversized material, bottlenecks can still occur at grizzly and draw point sites.

Typical solutions utilizing water and explosives can compromise the mine's infrastructure and put your workforce at risk. The BreakerBOSS series of mobile rock breakers can quickly reduce oversized material at grizzlies, stopes and draw points without water or explosives - improving safety, productivity and profitability.

The BreakerBOSS line features two models with a hydraulic breaker class range between 2,710 and 8,810 joules (2,000 and 6,500 ft-lb) on a purpose-built, large cross-section boom; providing excellent dexterity and strength for raking and breaking oversized material.

## Stay Ahead of the Grade

Our mobile mining equipment utilizes a common carrier for different breaking applications. It is designed to work around the mine quickly and efficiently. The heavy-duty, compact articulated construction makes the machine easy to maneuver and able to withstand severe conditions. The innovative on-board monitoring, diagnostics and control system maintains equipment reliability and serviceability. An ergonomic ROPS/FOPS certified operator cabin and HVAC system maintain excellent personnel comfort and safety while providing high visibility.

Built with hydraulic wheel drive (HWD) and patented advanced braking and tramming control system (ABT), our mobile equipment series gains more traction and power with fewer emissions than conventional mechanical systems.

- 1** 28% Percent More Efficient: turbo diesel engine, driving a closed loop hydraulic pump, transfers power through four independent hydraulic wheel motors for high efficiency
- 2** Engine Anti-Stall: insufficient engine power for the load causes the pump to de-stroke, allowing the engine to recover
- 3** Reduced Emissions: an efficient engine means fewer emissions, reducing the mine's need for high ventilation rates during operation
- 4** Traction Control: using both accelerator and brake pedals for tram and braking control, our patented advanced braking and tramming (ABT) system is smooth and seamless with an automotive feel







### 1 Quickly Reduce Oversized Material

When ore flow becomes bottlenecked at your grizzly and draw points, you need one powerful, pliable and portable machine to quickly break oversized material, work in tight spaces and service multiple stations where blockages occur.

### 2 Horizontal and Vertical Coverage Range

The BreakerBOSS is a dual-purpose mobile rock breaker. A three-meter vertical working range provides productivity at the ore-flow pass, while the four-meter horizontal range works on the grizzly, offering a great combination of vertical and horizontal coverage in a single machine.

### 3 Keep Personnel Safe

Breaking oversized, hard rock at the jam point where heavy ore flow is waiting to burst through from behind is unpredictable and hazardous. Outfit your machine with our line-of-site remote operation or accommodate for tele-remote, keeping workers away from dangerous conditions.

### 4 Technology to Keep You Ahead of the Grade

Continually monitor your machine for improved performance with our innovative advanced control and diagnostics. The system watches your engine, hydraulics system, traction control, wiring harness, coils, joysticks, sensors, system pressures, fluid levels and temperatures while keeping a log of machine hours, errors, faults, temperatures and pressures.

### 5 Operator Comfort

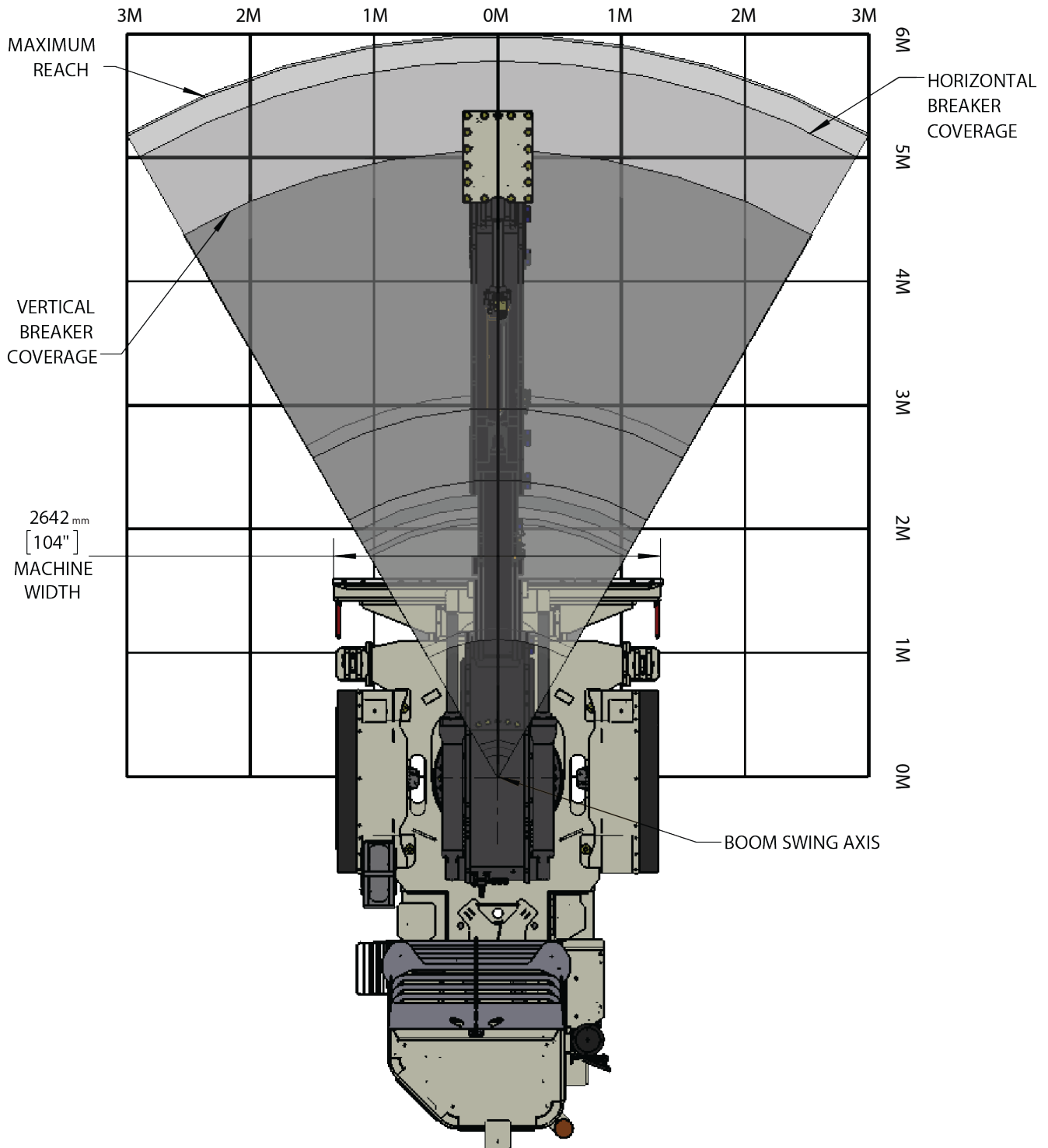
Our mobile equipment line is built on the same carrier for superior operator comfort during operation. This series offers a ROPS/FOPS certified cabin, ergonomic seat with joystick control, HVAC system, safety glass windows with front rock guards and rubber isolators between the cabin and frame to absorb impact.

### 6 Cleaner Air and Easy Maintenance

Built with our hydraulic wheel drive (HWD) and advanced braking and tramming control system (ABT), this mobile equipment series gains more traction and power with fewer emissions than conventional mechanical systems. Hydraulic braking means no brake pads to service or replace; plus with its innovative control and diagnostics, it's easy to address operational and maintenance issues. Our mobile equipment series provides both reliability and enhanced safety underground, keeping you ahead of the grade.

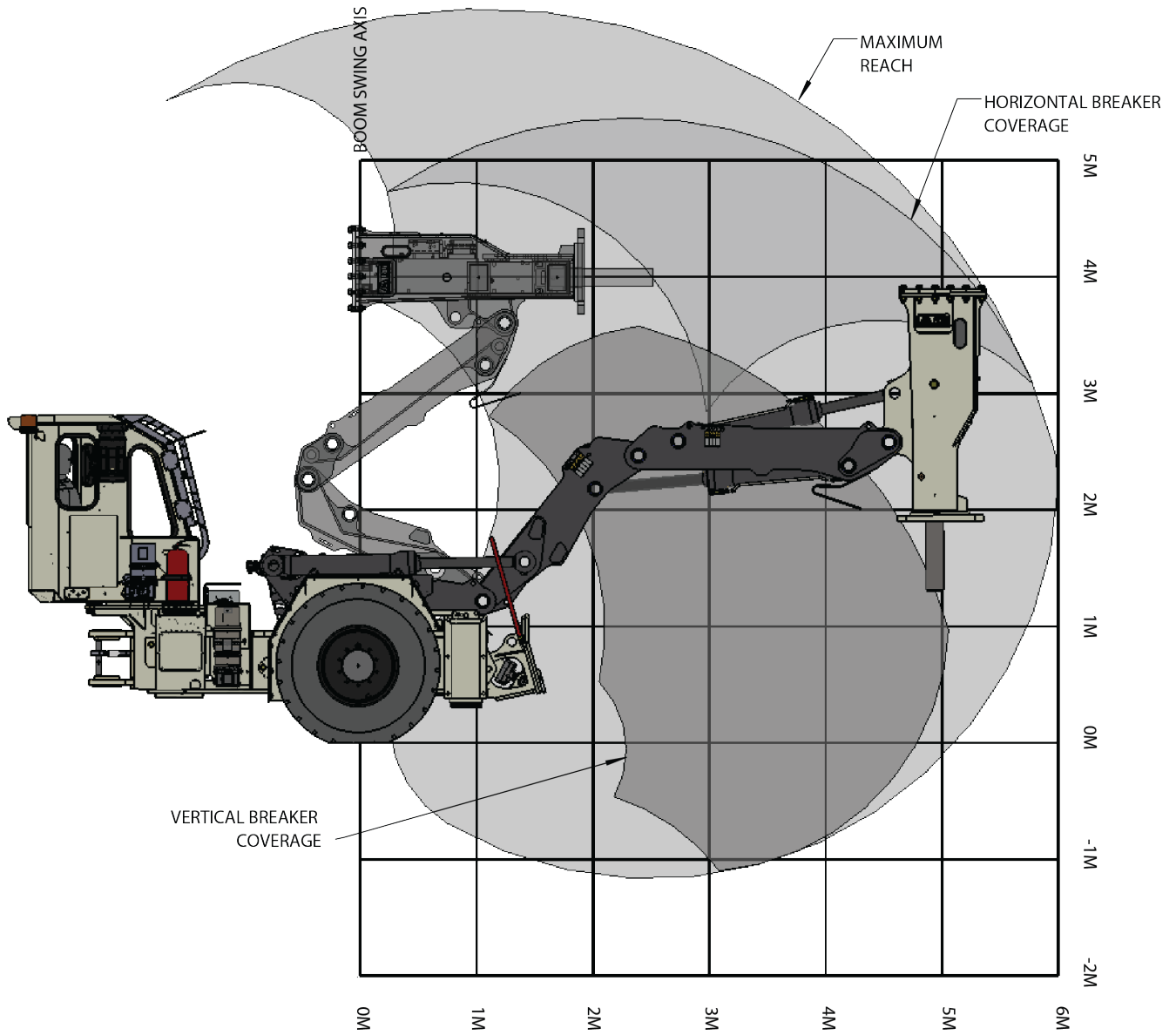
# BOOM COVERAGE

## BOOM COVERAGE TOP VIEW



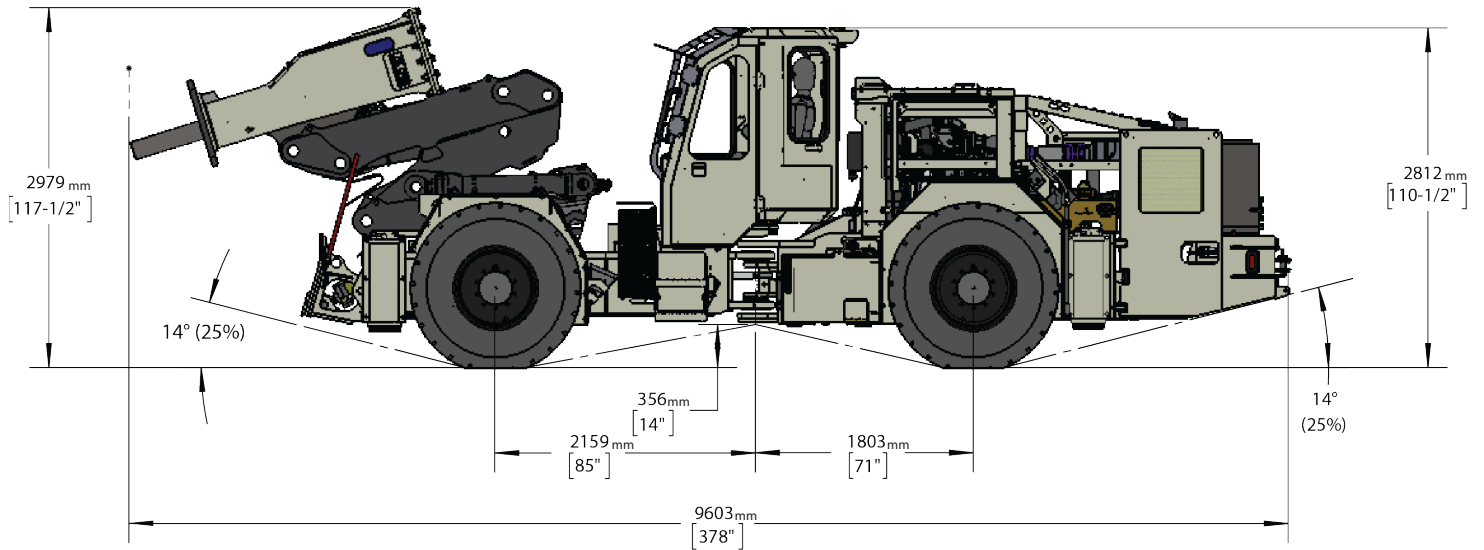
Specifications are subject to change without obligation of prior notice. All results may vary.

# BOOM COVERAGE SIDE VIEW

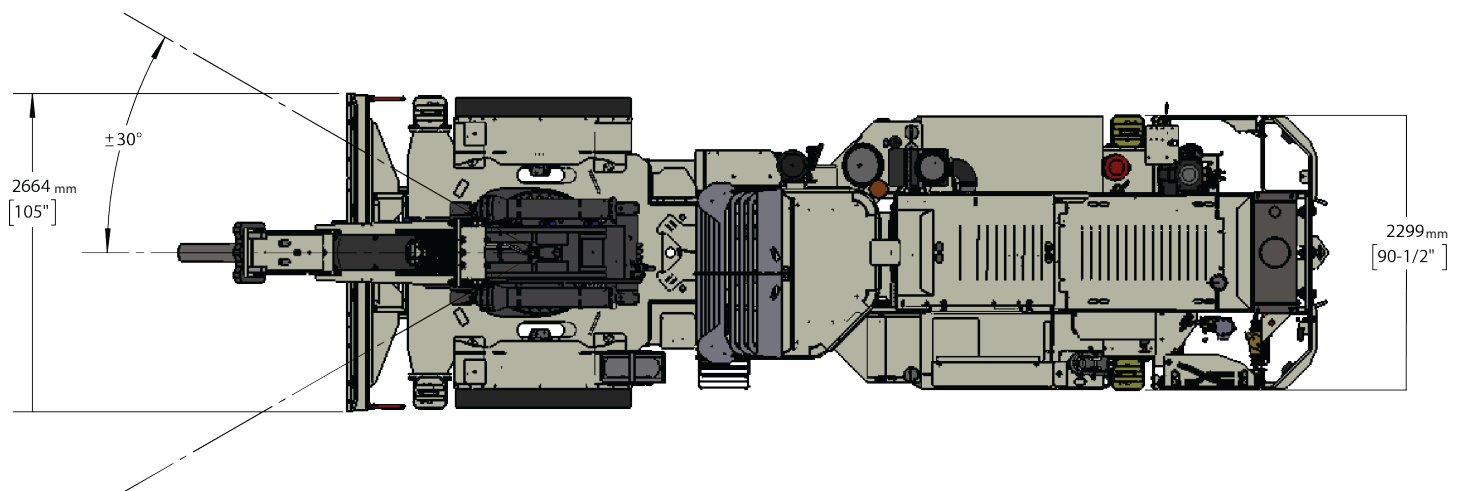


# DIMENSIONS

## SIDE VIEW



## TOP VIEW

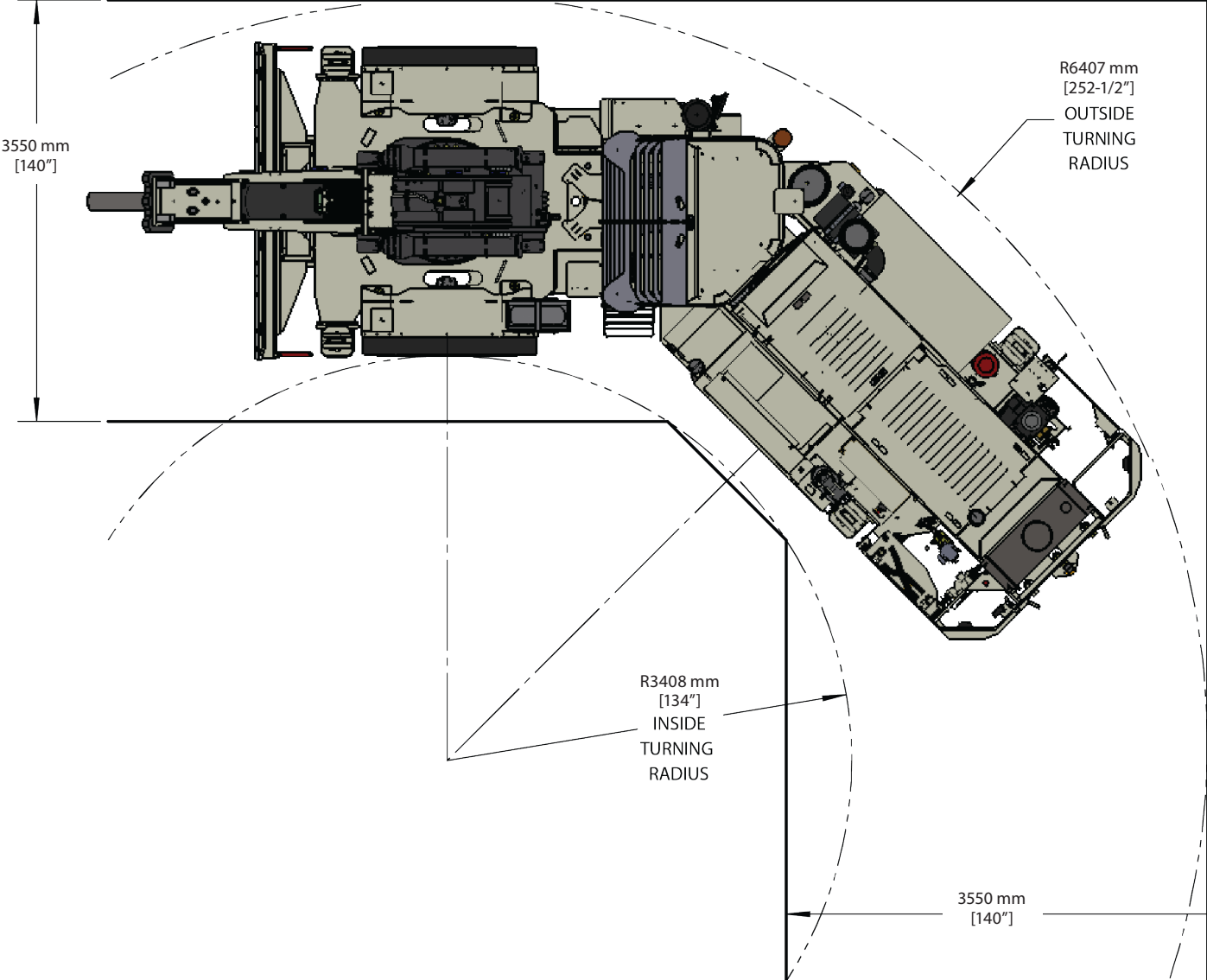


Specifications are subject to change without obligation of prior notice. All results may vary.



# TURNING RADIUS

## TOP VIEW



# SPECIFICATIONS

## Rock Breaking System

- Boom swing: +/- 30 degree
- Frame: rugged construction resists twisting and shock loading
- Boom: engineered sections fabricated from high-strength carbon steel with reinforced ends
- Pivot pins: oversized alloy steel with replaceable bushings
- Cylinders: equipped with oversized rods and self-aligning bushings at each end to prevent side loading of cylinders during raking and breaking operations
- Controls: proportional electro-hydraulic controls for boom functions, on/off for breaker fire, 24V solenoids. Joysticks located in arm rests of operator seat
- Stabilizers: reinforced to ensure stiffness and stability during breaking operations

## Carrier

- Four-wheel drive: articulated, all welded, heavy plate construction with engine end axle oscillation
- Spherical roller bearing articulation joint designed for long life
- Articulation/steer angle: +/- 45 degree
- Greasing: central manual greasing system, for steer cylinders and center articulation joint

## Engine

- Deutz TCD2012L062V 132 kW (177 HP) Tier 3 MSHA
- Dry element engine air intake with safety element
- Catalytic exhaust purifier/silencer

## Tires

- 14.00R24 heavy duty mining tires, pneumatic with wheel chocks

## Brakes

- Spring apply/hydraulic release parking and emergency brake in each hydraulic wheel motor
- Closed loop hydraulic wheel end service brakes via pump over center swash plate
- Performance meets/exceeds CAN/CSA-M424 3-M90 braking standard

## Hydraulic System (closed loop drive)

- Poclain over-center hydraulic pump for forward and reverse
- Poclain hydraulic wheel motors
- 150 L (40 gal) hydraulic reservoir with pressurized breather, and low level/high temperature warning switches
- Charge pressure filter, 9 micron absolute
- Hand pump used to fill hydraulic tank through 10 micron absolute filter

## Fuel System

- 189 L (50 gal) fuel tank with shut-off valves
- Pre-filter
- Water separator
- Fuel level indicator display

## Hydraulic System (open loop)

- Variable displacement load-sensing hydraulic system for steering and boom functions
- Supercharged pump inlet for use at elevation
- 321L (85 gal) hydraulic reservoir for steering and boom circuit with 12 psi
- Minimum pressurized fill cap and low level/high temperature warning switch(es)
- Pressure filter: 10 micron absolute
- Return filter: 10 micron absolute
- 24 Vdc electro-hydraulic control valves

## Electrical System

- 24 Vdc 100 amp alternator
- 2 x 195 Ah 12V batteries, in series
- CANBus based electronic control system with display for all vehicle systems data
- Includes health monitoring and diagnostics for engine and HWD systems
- Flame retardant wiring
- Lockable battery disconnect
- FWD/REV high output LED drive lights
- Cab-mounted high output LED work lights
- Rear red marker/brake lights and back up alarm
- Horn
- Cab-mounted beacon light
- 12V 12.5A auxiliary power outlet

## Tram Controls

- Automotive style accelerator and service brake pedals
- Automatic and manual shift (1, 2, 3, & A select, forward and reverse)
- 4WD traction control system
- Steer by wire, joysticks integrated into operator seat arm rest

## Cab

- ROPS/FOPS-certified, ergonomic cab designed to meet SAE standards
- J898 (control locations for off-road work machines) and J154A (operator enclosures human factor design considerations)
- Windshield wipers/washer system
- HVAC, with hydraulic driven AC compressor
- Safety glass windows, with rock guard over front window
- 2.5 lb ABC fire extinguisher

## Options

- Choice of breaker tool
- Pusher blade: single hydraulic cylinder actuated
- Breaker automatic lube system: 16L electric- driven lube pump, uses chisel paste
- Boom and carrier automatic lubrication system: 8L electric driven lube pump and dedicated grease injectors for each lubrication point on rockbreaking boom and carrier pin connections
- Dust suppression system: 24V pump c/w 75 gal (284L) S.S. holding tank with mine water hook-up
- Fire suppression: ANSUL LVS-30 liquid chemical, 6 nozzle, manually activated
- Spare tire and rear assembly: 14.00R24 heavy duty mining tire
- Radio remote control: line of sight control for rockbreaking boom system and tram functions for distance up to 50m (160ft.)
- Engines: Deutz TCD2013L06 110kW (148 hp) at 4500 masl or Deutz TCD6.1T4F 129kW (172hp)
- Data link (remote machine monitoring) option: industrial communication protocol interface for data transfer from Astec control system to customer's external system (DCS, PLC, or SCADA). Permits Astec to transmit machine faults, warnings, machine hours, and instrument status to the customer's process and control system

## BXR50C Hydraulic Breaker

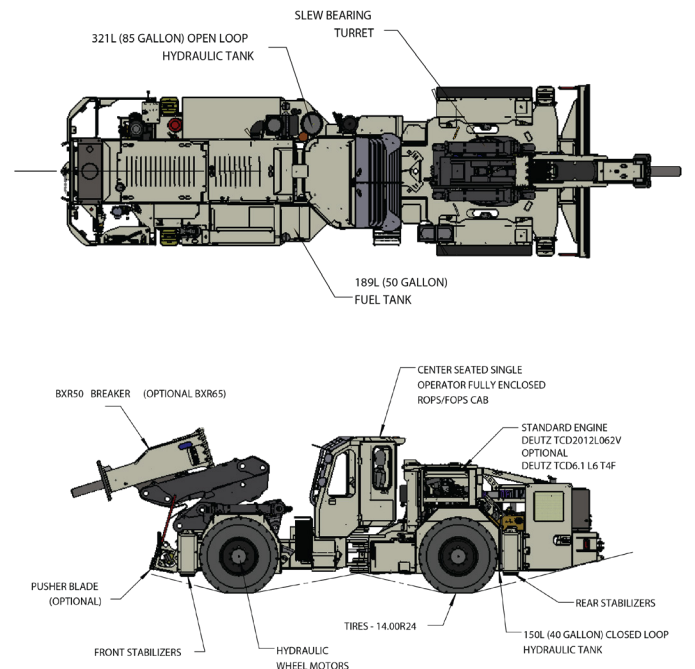
Dimension	Imperial	Metric
Impact Energy	5,000ft-lbs	6,780J
Impact Rate	440 - 810bpm	
Hydraulic Pressure	2,700psi	186 bar
Oil Flow	42-53gpm	160-200lpm

## BXR65C Hydraulic Breaker

Dimension	Imperial	Metric
Impact Energy	6,500ft-lbs	8,810J
Impact Rate	400 - 800bpm	
Hydraulic Pressure	2,700psi	186 bar
Oil Flow	46 - 58gpm	175 - 220lpm

## Carrier

Dimension	Imperial	Metric
Weight	55,891 lb	25,352kg
Height	9' 3"	2.8m
Width	8' 8"	2.6m
Length	34'	10.3m
Inside Turning Radius	11' 2"	6.36m
Outside Turning Radius	20' 11"	15.21m
1st Gear	4.8mph	7.7kph
2nd Gear	7mph	11.2kph
3rd Gear	13.2mph	21kph





**ASTEC™**

[www.astecindustries.com](http://www.astecindustries.com)