

# SCALEBOSS SERIES MOBILE SCALERS



# BUILT FOR THE UNDERGROUND

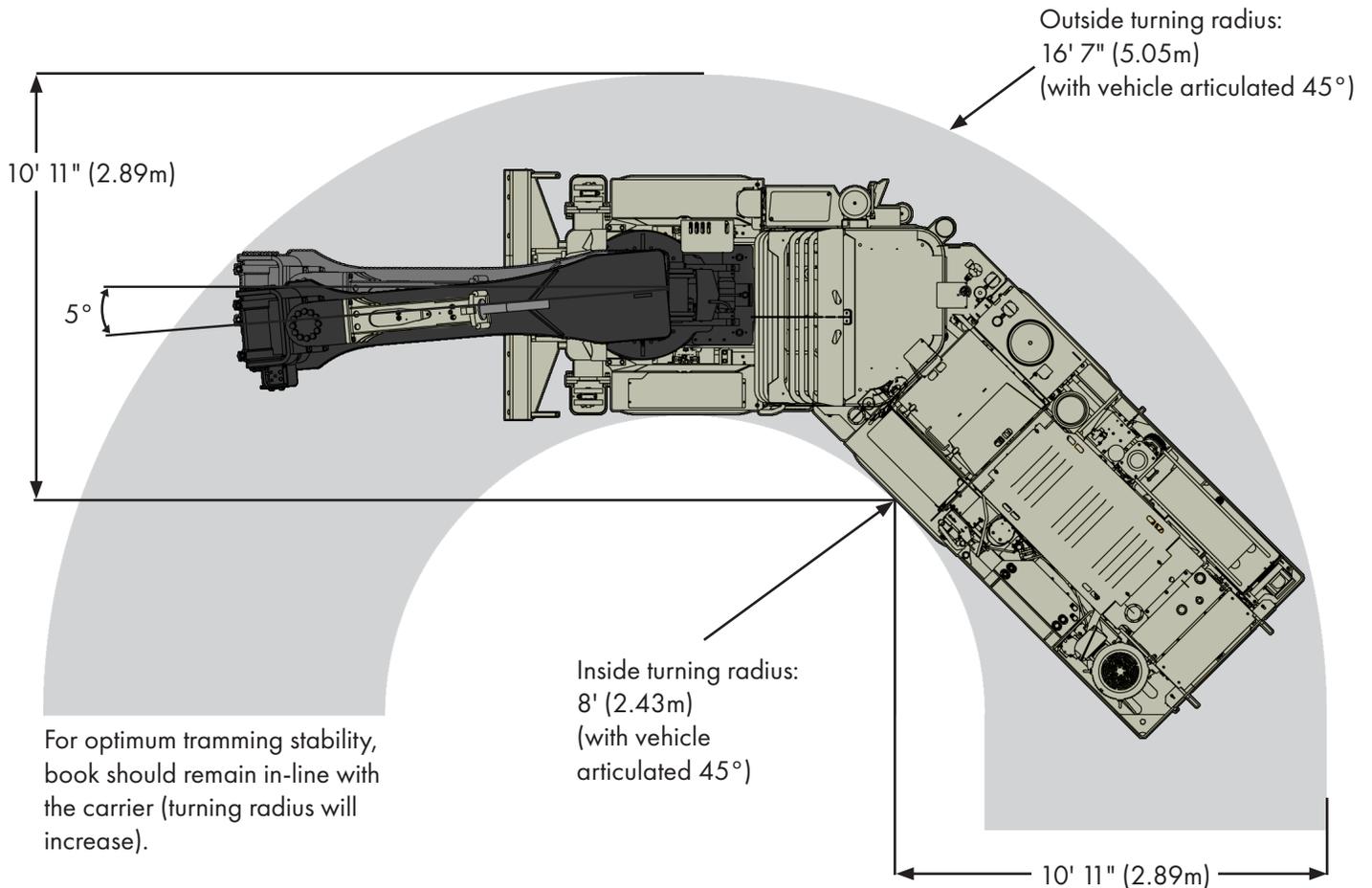
For over fifty years, Astec has focused on developing innovative machines built for strenuous environments — and nothing is more demanding than underground mechanical scaling. Our ScaleBOSS 3D and 3DE models provide the reliability and enhanced safety you need underground.



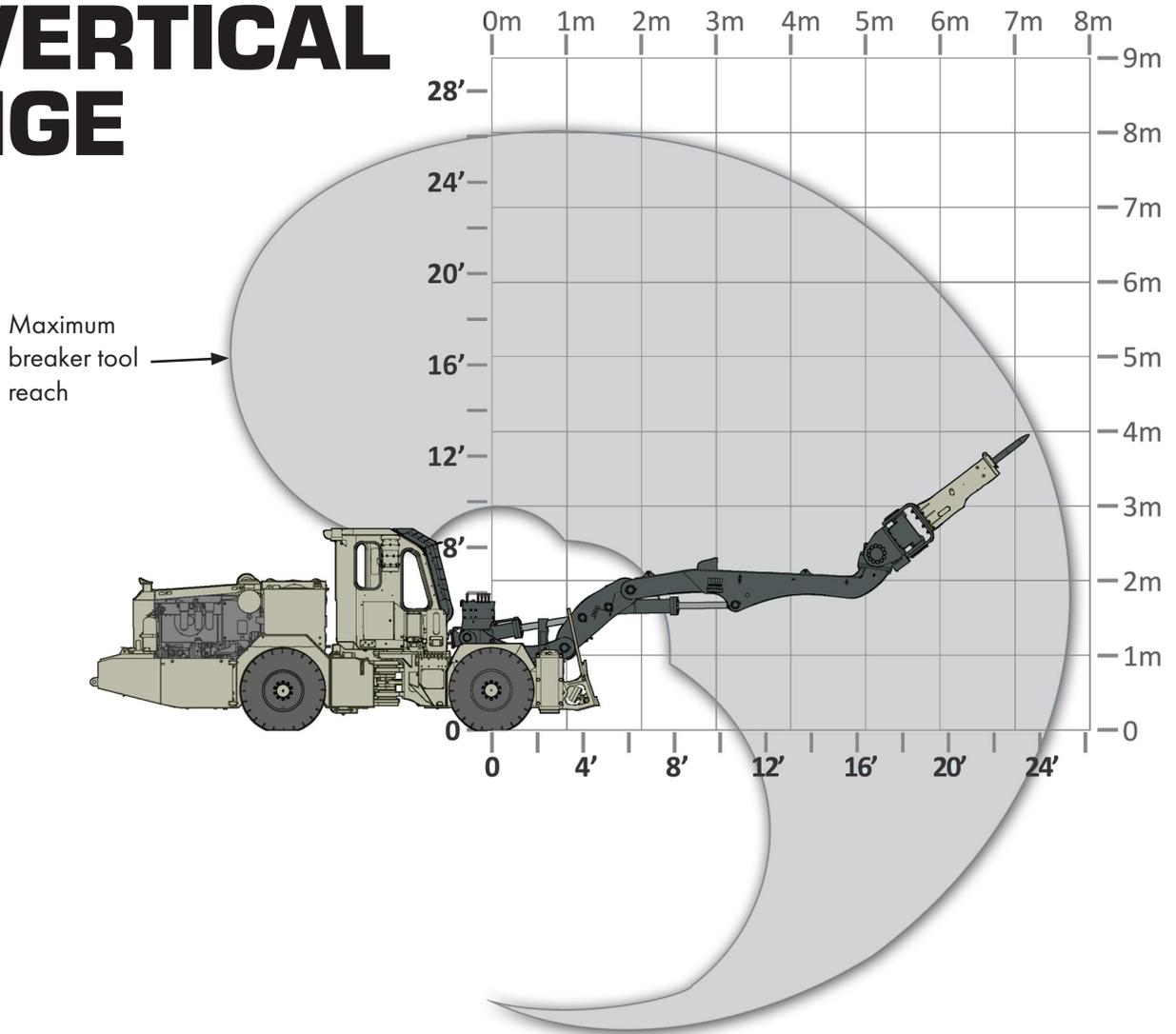


# EXCEPTIONAL COVERAGE, COMPACT PACKAGE

Our ScaleBOSS series is for a new generation of mining productivity and safety. Its five-axis boom offers enhanced flexibility and superior coverage where other scalers fail. The heavy-duty, compact construction makes it easy to maneuver while withstanding extreme conditions. The ergonomic, ROPS/FOPS-certified operator cabin and HVAC system maintain excellent personnel safety while providing high visibility and comfort.



# SCALEBOSS 3D VERTICAL RANGE



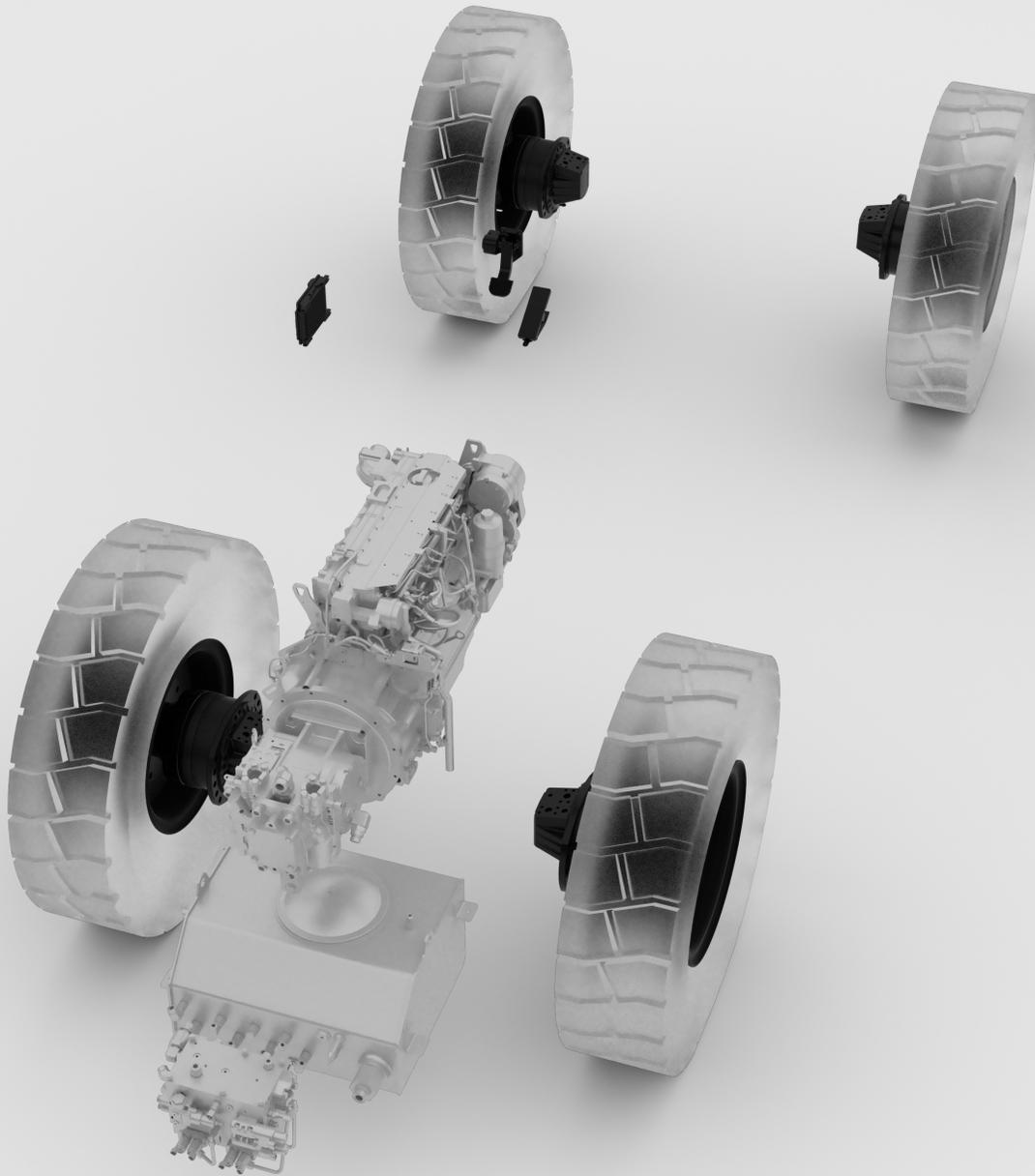
## FEATURES

- Heavy-duty compact construction
- Boom coverage provides full scaling within 4 meter advance from one set up; no repositioning required
- Optimal for headings 3-5 meters
- Five-axis boom for excellent maneuverability
- Deutz diesel engine
- Spherical roller bearing articulation joint designed for long life
- Closed-loop hydraulic wheel drive (HWD) with separate reservoir, four-wheel drive and traction control
- Spring applied hydraulic release (SAHR) parking/emergency brake in each hydraulic wheel motor
- Closed-loop hydraulic wheel end service brakes via pump-over-center swash plate
- Heavy-duty mining fires
- Load-sensing hydraulic circuit for boom and steering functions
- Dedicated open-center hydraulic circuit for breaker fire function
- 24Vdc/100 amp electrical circuit with CANBus-based system, proportional electro-hydraulic control and touch-screen human interface
- Ergonomic ROPS/FOPS-certified operator cabin with excellent visibility and operator comfort, complete with HVAC
- Heavy-duty fabricated boom structures with versatile feed, robust slew bearing and dual rotary actuators for optimized coverage
- BX10SB (1,000ft-lb class) scaling breaker

# EASY MONITORING AND MAINTENANCE

Our control system continuously monitors your machine for improved performance and response. Operator duties are simplified by our real-time central monitoring and diagnostics. The system gauges the 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.





## **1** Hydraulic Braking

Built with our hydraulic wheel drive (HWD) and advanced braking and tramming control system (ABT), the ScaleBOSS series gains more traction and power with fewer emissions than conventional mechanical systems. Hydraulic braking also means no brake pads to service or replace.

## **2** Easy Maintenance

With a dedicated, open-center hydraulic circuit for the breaker function, it is easy to identify and address maintenance issues. Cylinders and hydraulic components are protected to avoid damage from contamination.

# OPERATOR COMFORT

Our ROPS/FOPS-certified cabin is fitted for complete operator comfort and safety. Every ScaleBOSS mobile scaler offers an ergonomic seat with joystick control, HVAC system, safety glass windows with front rock guard and rubber isolators between the cabin and chassis for comfort during tramming and scaling.





# SPECIFICATIONS

## Boom

- Boom swing: +/- 30°
- Breaker swing: +/- 90°
- Breaker tilt: 180°

## Carrier

- TCD2012L06 2V engine
- Hydraulic four wheel drive
- Traction control system
- Tires: 12.00 R20 28 PR pneumatic
- Hydrodynamic service brakes
- Emergency/park brakes: SAHR
- Fire extinguisher: 20 lb
- Dry element air intake
- Catalytic exhaust purifier/silencer
- Central lubrication system

## Electrical System

- 24 Vdc 100 amp alternator
- 2 x 195 Ah 12 V batteries, in series
- CANBus-based electronic control health monitoring and diagnostics for engine and HWD systems
- Flame retardant wiring
- Lockable battery disconnect
- FWD/REV high output LED drive and work lights
- Rear red marker/brake lights and backup alarm
- Horn
- 12 V 12.5 A auxiliary power outlet
- Joysticks integrated into operator seat armrest

## Carrier

Dimension	Imperial	Metric
Power Rating at 2,300 RPM	129 hp	93 kW
Tramming Speed on Flat	14 mph	22 km/h
Tramming Speed on 1:7	5 mph	8 km/h
Articulation	+/- 45°	
Axle Oscillation	+/- 8°	
Fuel Reservoir	50 gal	189 L

## Hydraulic System

- Hydraulic pumps: 2 variable, 1 fixed
- Filtration: 10 micron
- Three (3) air/oil hydraulic coolers
- Low oil indicator on all reservoirs
- Mineral hydraulic fluid
- Manual oil fill pump for tram circuit

## Operator Cabin

- ROPS/FOPS-certified
- Windshield wipers/washer system
- HVAC (heating, ventilation, air conditioning)
- Safety glass windows with rock guard over front window
- Rubber-damped for comfort during tramming and scaling
- Emergency egress window

## Options

- Pusher blade
- Breaker auto-lube system with air flush
- Boom auto-lube system
- Dust suppression system
- Fire suppression system
- Backup camera
- Radio remote control
- Door/brake interlock
- High altitude package Duetz 2013L06 engine
- Exhaust wrap and manifold coating
- Fuel fast fill
- CAT C4.4 engine
- Deutz TCD4.1 T4F engine
- Electric/hydraulic powerpack (ScaleBOSS 3DE)

## BX10SB Hydraulic Breaker

Dimension	Imperial	Metric
Impact Energy	1,000 ft-lb	1,350 J
Impact Rate	350-1,000 bpm	
Hydraulic Pressure	2,000 psi	140 bar
Oil Flow	12-21 gpm	45-80 lpm
Weight	948 lb	430 kg

Model	Operating Weight		Width		Tramming Length		Tramming Height		Boom Swing	Turning Radius			
	lb	kg	ft	m	ft	m	ft	m		Inside		Outside (w/boom swing)	
	lb	kg	ft	m	ft	m	ft	m	deg	ft	m	ft	m
ScaleBoss 3D	36,350	16,500	6.5	2	29.4	9	8.8	2.7	+/-30°	8	2.4	15.3	4.7
ScaleBoss 3DE	39,500	17,920	6.5	2	30.3	9.2	8.8	2.7	+/-30°	8	2.4	16.6	5.1





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