



**BREAKER
TECHNOLOGY,
INC.**

an Astec company

DS SERIES Underground Scalers

BTI's DS Series of Underground Scalers are engineered to provide a safe and efficient method of mine scaling. They offer flexibility to deal with virtually all scaling situations, the maneuverability to work in tight quarters, and the variable breaker power to match your scaling requirements.

Features & Benefits

The operator can use sight and sound to determine what is to be scaled; the very same criteria applied in precise manual scaling operations. Available in three models, DS Series Scalers combine proven componentry of simple and rugged construction.

Rugged TB335 Breaker

with adjustable blow energy, variable frequency and oversized tool provide the ability to match breaker output to scaling conditions.

Scaler Head with Hydraulic Extension, Swing & Dump

Three axis movement permits optimum scaler positioning to ensure only loose is scaled.



DS16

Unique Telescoping & Knuckle Positioner

incorporates high rigidity, torsional strength, telescoping extension and strategic guarding of hydraulic components.

Infinitely Variable Control System

for both boom and breaker functions provides adaptability to site conditions; overscaling is eliminated; and "sounding" is readily achieved.

Heavy Duty Stabilizers

or optional pusher blade (DS25 and DS20) allow easy set-up and operation from the machine in parked position; efficient, immediate removal of scaled material from roadways.

DS Series Underground Scalers



DS20

The hydraulic force-controlled breaker feed advancing along its longitudinal axis avoids jamming of the tool and provides controlled scaling of the back. The TB335 breaker feed is capable of movement along three axes to effectively scale along the back, rib and face. Scalers without breaker feeds will jam the tool in its bushing, resulting in rapid wear and failure of the tool, bushings and piston from partial blows and recoil.



Breaker Technology's DS Series of Scalers are engineered and manufactured to handle key requirements of the scaling operation:

When testing seams or rock laminations, the tool will occasionally get wedged in the material. Withstanding the resulting prying loads requires a relatively large size breaker with a large diameter tool and heavier body. The TB335 provides a blow energy of 850 ft lbs and can be adjusted to suit the ground conditions to avoid over-scaling.

The hydraulic system is a two-circuit design; one complete system for the carrier and one for the breaker operation, making it quick and easy to identify and address maintenance issues and keep downtime to a minimum.

For any carrier with a boom, stability and good weight distribution play a vital role in reducing shock loads, ultimately providing longer life and reduced maintenance. The scaling boom and carrier are built rugged to handle the breaker/breaker feed assembly, which is approximately 1.5 T, and to withstand abnormal loads from the scaling operation such as shock loading from large loose during its accidental dislodging from the back. A heavy-duty telescopic boom knuckle comfortably withstands loads. The carrier is further enhanced with four hydraulically operated stabilizers which remove any stresses on the axles during scaling.

All cylinders and the hydraulics are protected to avoid damage from the loose material. All cylinders and hoses are positioned under the boom or housed to protect from falling rock. A protective canopy or cabin ensures safety while operating from the operator's seat. A remote control pendant for the boom and breaker is also available.



DS25

DS Series Underground Scalers

Model	DS25	DS20	DS16
Carrier Base	LP15ARW	LP15ARW	LP15ARN
A	36'5"	31'9"	32'8"
Tram Length	11.1m	9.4m	10m
B	7'	7'	5'11"
Tram Width	2.1m	2.1m	1.8m
C	10'9"	10'9"	9'6"
Turn Radius Inside	3.2m	3.2m	2.89m
D	18'6"	18'6"	16'6"
Turn Radius Outside	5.3m	5.3m	5.03m
E	8'4"	8'4"	7'4"
Tram Height	2.54m	2.54m	2.23m
F Optimum Coverage Height	25'	20'	16'
	7.62m	6.08m	4.87m
G Coverage Width at Optimum Height	11'3"	6'3"	7'6"
	3.43m	1.91m	2.29m
H Max. Reach Height	35'2"	27'9"	21'9"
	10.72m	8.46m	6.68m
Total Machine Weight	42,000 lb 18,750 kg	36,000 lb 16,075 kg	31,000 lb 13,840 kg

Boom Hoist-Total Arc	36°	36°	42°
Dipper-Total Arc	67°	67°	N/A
Breaker Tilt-Total Arc	130°	130°	118°
Boom Swing-Total Arc	60°	50°	60°
Breaker Swing-Total Arc	70°	70°	70°
Boom Extension Feed	84"	36"	82"
	213.3mm	91.4mm	208.2mm
Breaker Extension Feed	18"	18"	18"
	45.7mm	45.7mm	45.7mm
Extension Total	8'6"	4'6"	4'6"
Boom & Breaker	2.6m	1.37m	1.37m

Dual Hydraulic System for both Boom & Breaker:

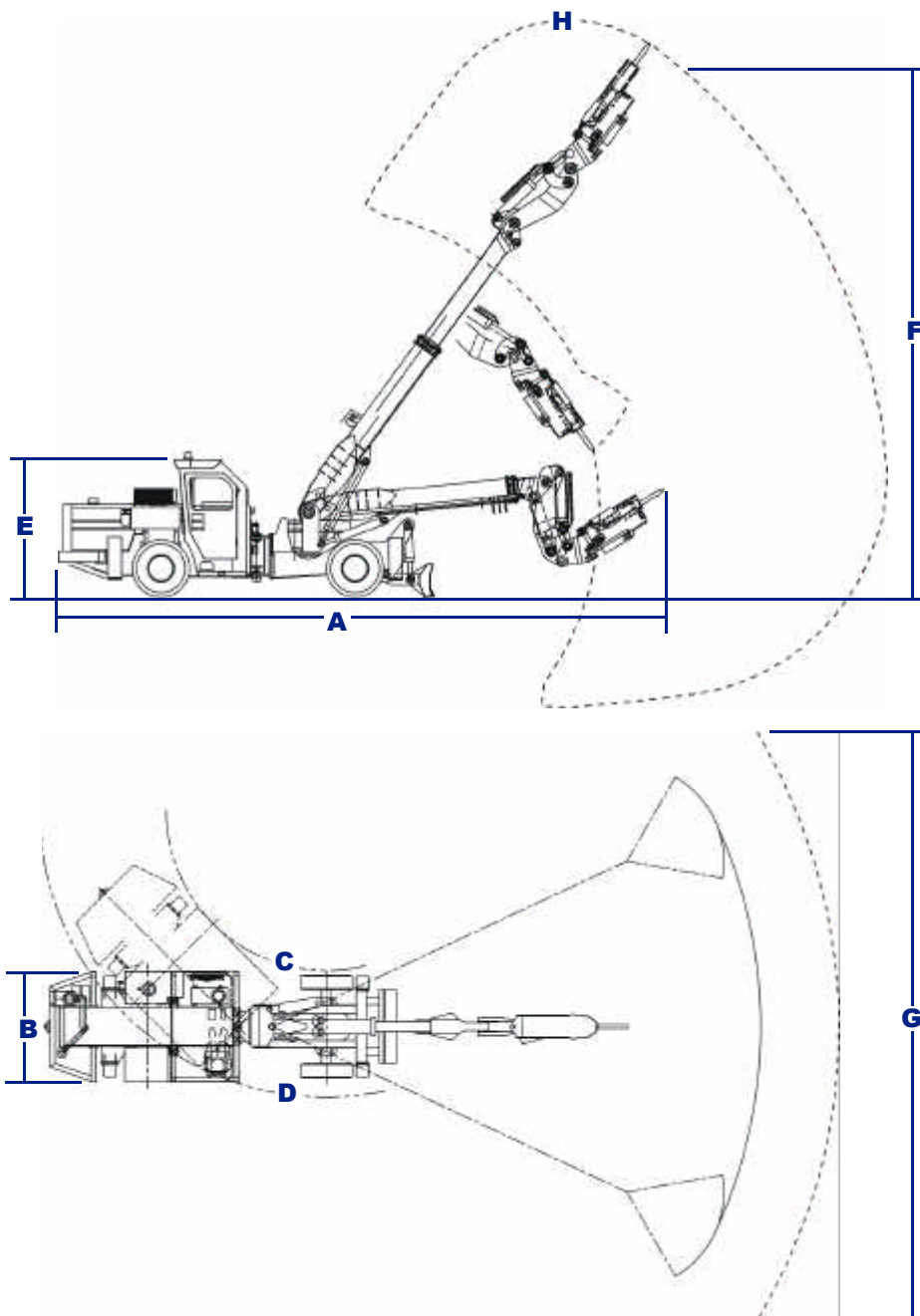
Hoist (bore/rod)	6"/2.75"	5"/2.75"	5"/2.75"
	15.2/6.9mm	12.7/6.9mm	12.7/6.9mm
Extension (bore/rod)	4"/3"	4"/3"	4"/3"
	10.1/7.6mm	10.1/7.6mm	10.1/7.6mm
Dipper (bore/rod)	7"/4"	7"/4"	N/A
	17.7/10.1mm	17.7/10.1mm	N/A
Tilt (bore/rod)	6"/3.5"	6"/3.5"	5"/2.75"
	15.2/8.8mm	15.2/8.8mm </td <td>12.7/6.9mm</td>	12.7/6.9mm

Standard Features:

TB335 Scaler Breaker
 4 Stabilizers
 Certified ROPS canopy - 100 inch
 Breaker lubrication system
 Four 12 x 20 mine service tires

Options:

Pusher blade attachment
 Fully enclosed ROPS/FOPS cabin
 Radio Remote
 Power Pack - 50 HP c/w hose reel, starter panel, valving & plumbing
 Auto grease system, or Manual grease system



TB335 Scaler Breaker

Impact Energy Class	850 ft lbs	
Blows/minute	640-1,100	
Oil Flow	15 US gpm	58 lpm
Operating Pressure	1,400-2,300 psi	100-160 bar
Operating Weight	735 lbs	334 kgs
Tool Diameter	3"	75 mm
Approx. Tool Weight	44 lbs	20 kgs

Please refer to LP15AR brochure for carrier specifications.
 All dimensions and specifications are approximate and subject to change without notice.

Authorized Dealer



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