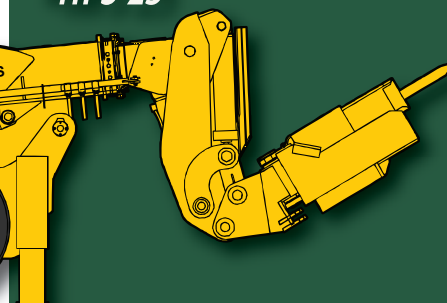


- *HFS 15*
- *HFS 20*
- *HFS 25*



Technical drawings of the HFS20 forklift. The top drawing is a top-down view showing the mast and forks. The bottom drawing is a side profile view showing the engine, chassis, and mast. Dimensions are provided in feet and inches, and meters.

Top View Dimensions:

- Overall width: 7'-1" (2.16 m)

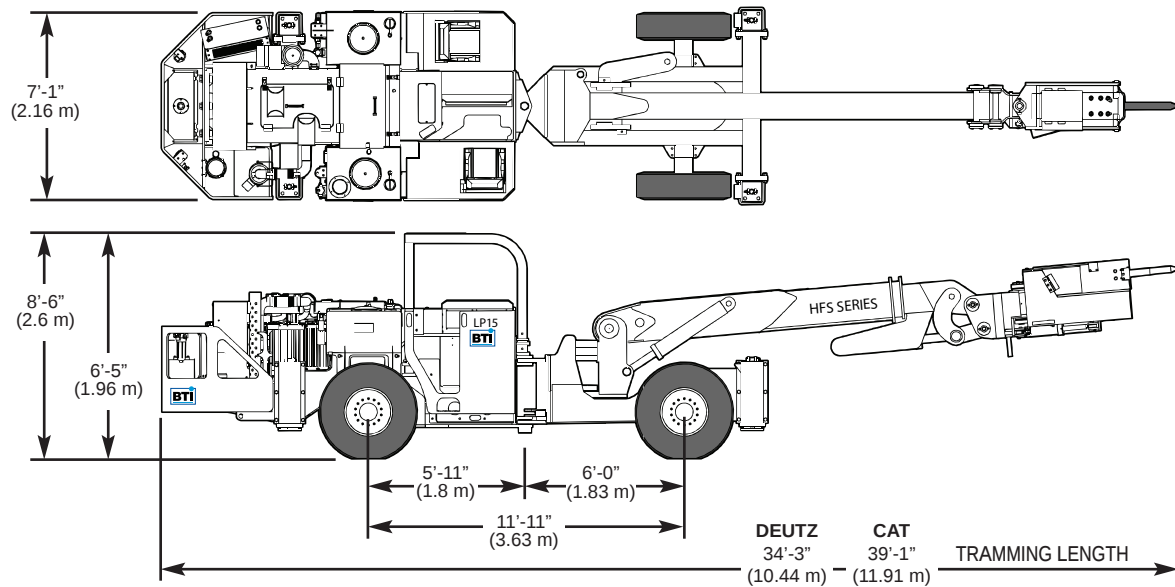
Side View Dimensions:

- Overall height: 8'-6" (2.6 m)
- Wheelbase: 5'-11" (1.8 m)
- Overall length: 6'-0" (1.83 m)

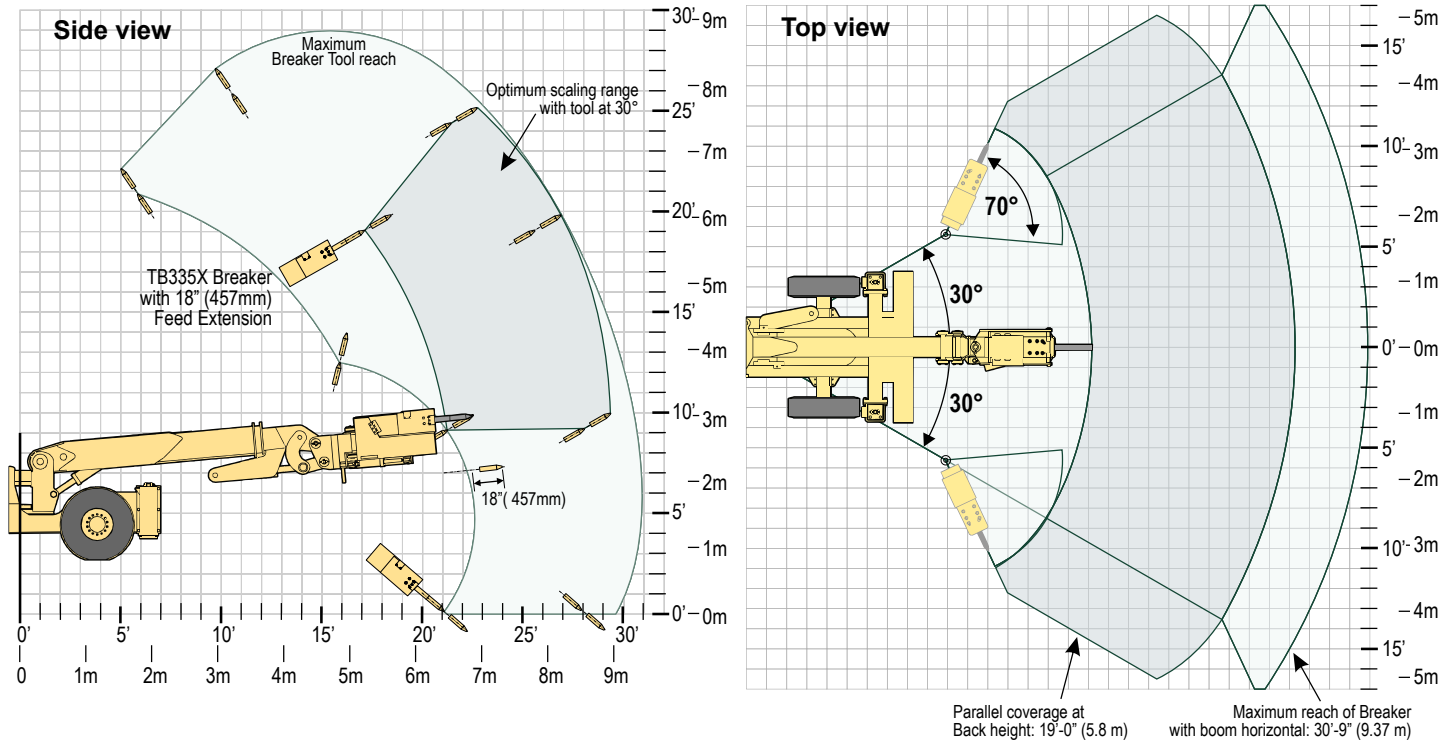
Mast and Fork Dimensions:

Model	Mast Height (ft)	Mast Height (m)	Fork Length (ft)	Fork Length (m)
HFS16	39'-1"	(11.91 m)	34'-3"	(10.44 m)
HFS20 (shown)	39'-2"	(11.94 m)	34'-3"	(10.44 m)
HFS25	39'-2"	(11.94 m)	34'-3"	(10.44 m)

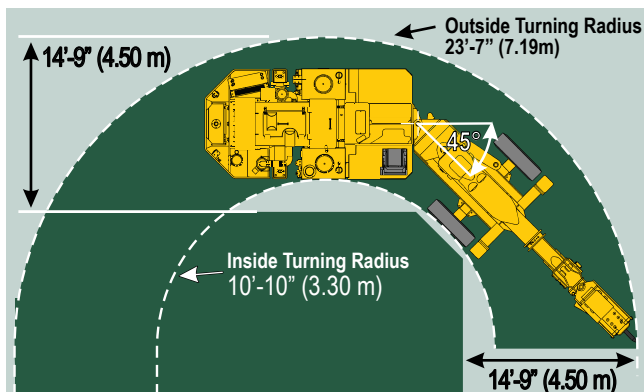
HFS16 SCALER DIMENSIONS



HFS16 SCALER COVERAGE



HFS16 TURNING RADIUS

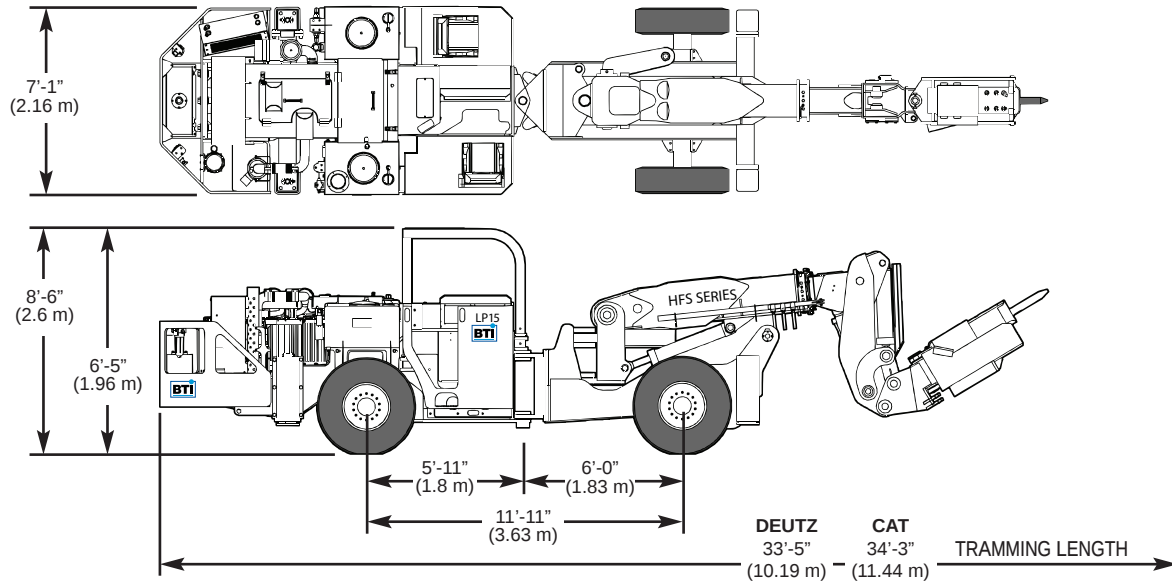


Turning Radius

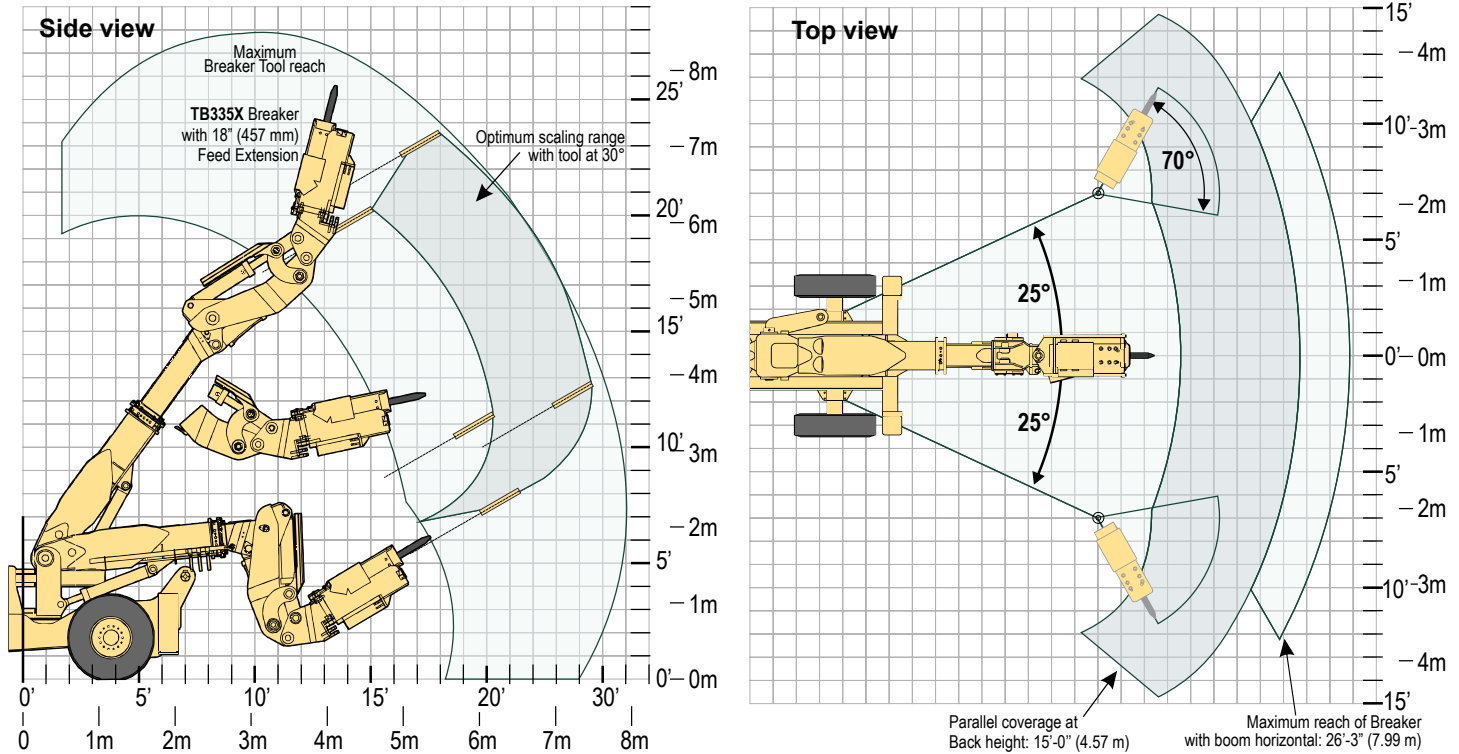
Turning radius: +/- 45° articulation

Boom should remain in-line with the carrier during tramming for optimum stability.

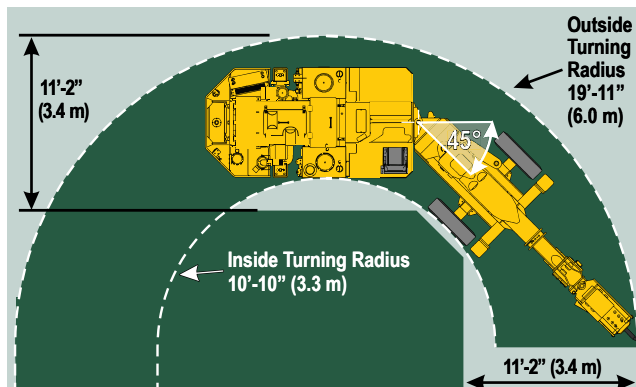
HFS20 SCALER DIMENSIONS



HFS20 SCALER COVERAGE



HFS20 TURNING RADIUS

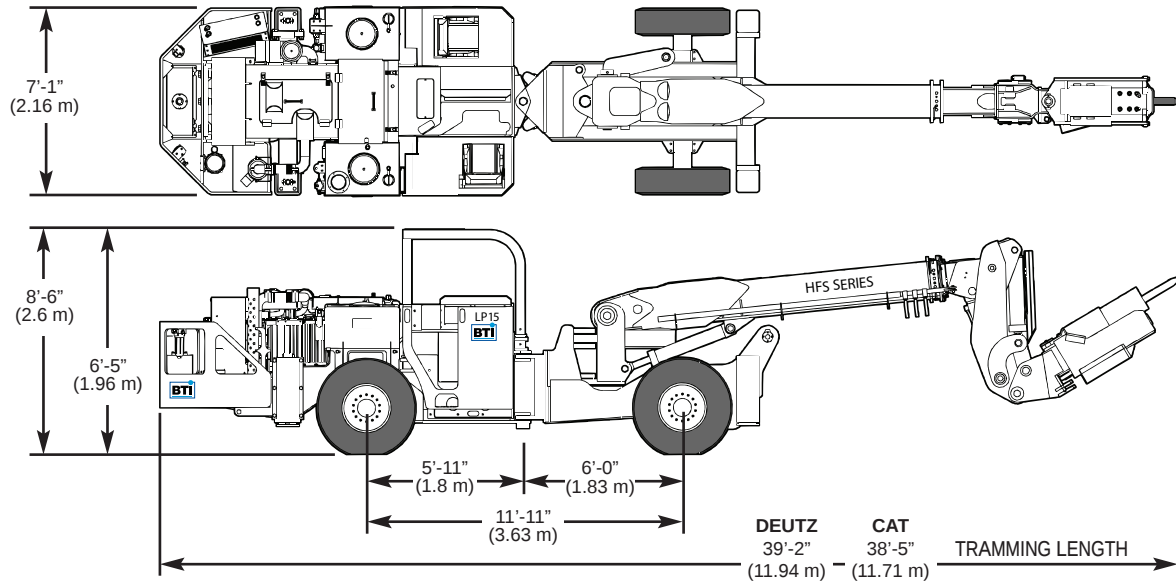


Turning Radius

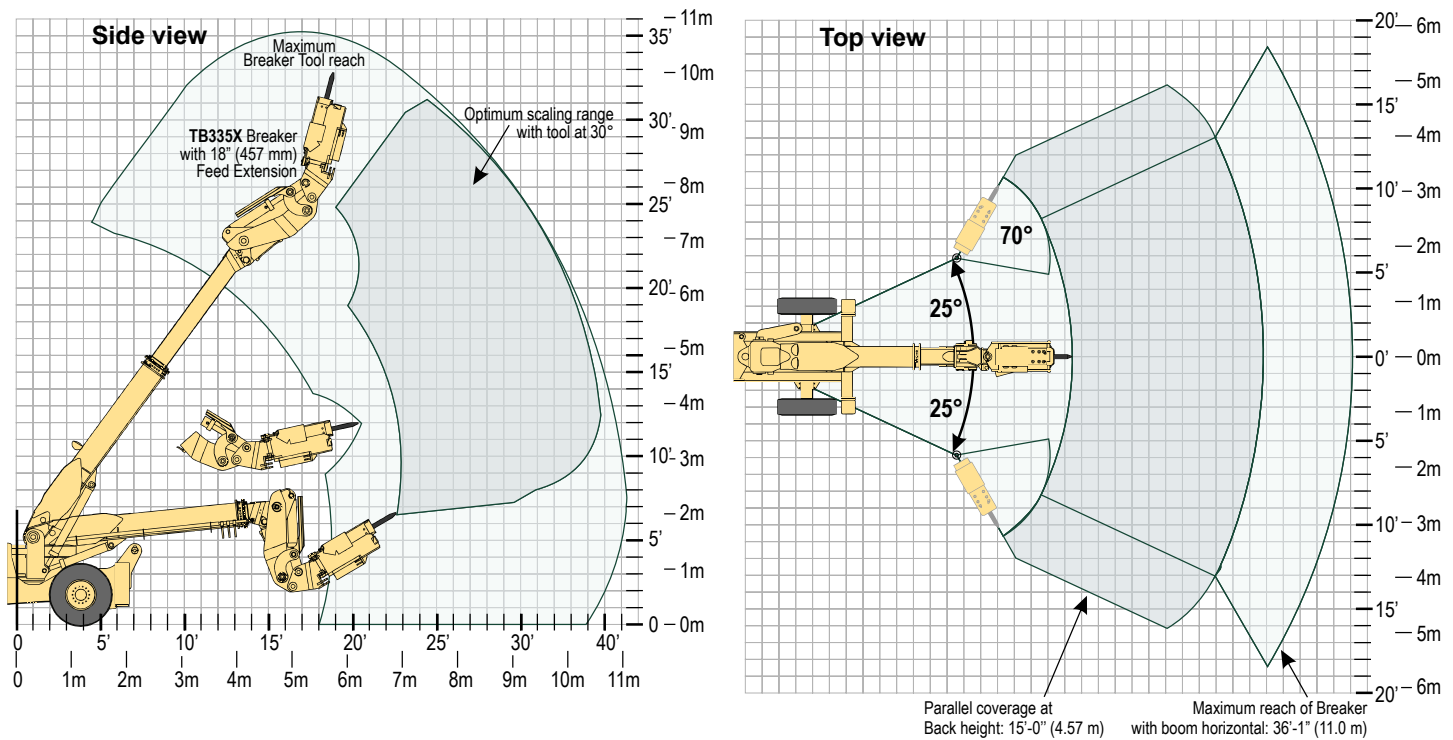
Turning radius: +/- 45° articulation

Boom should remain in-line with the carrier during tramming for optimum stability.

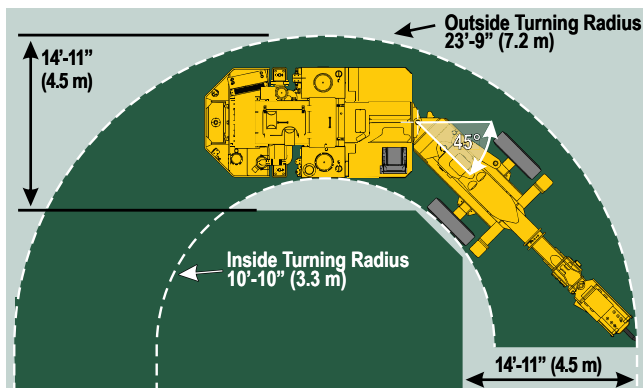
HFS25 SCALER DIMENSIONS



HFS25 SCALER COVERAGE



HFS25 TURNING RADIUS

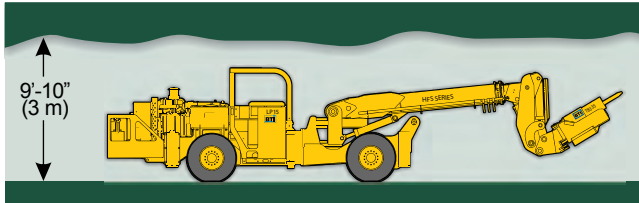


Turning Radius

Turning radius: +/- 45° articulation

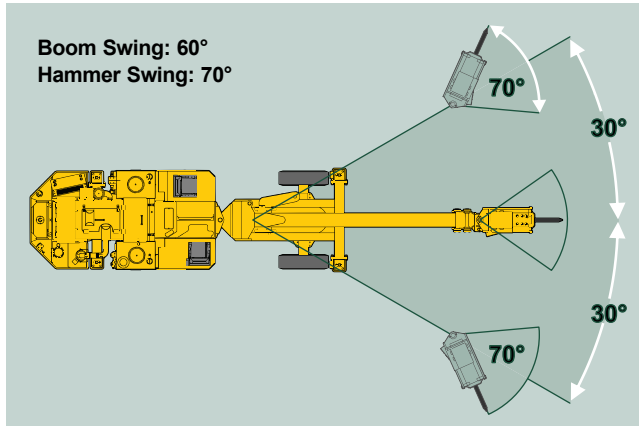
Boom should remain in-line with the carrier during tramming for optimum stability.

DRIVING & SCALING SPECIFICATIONS



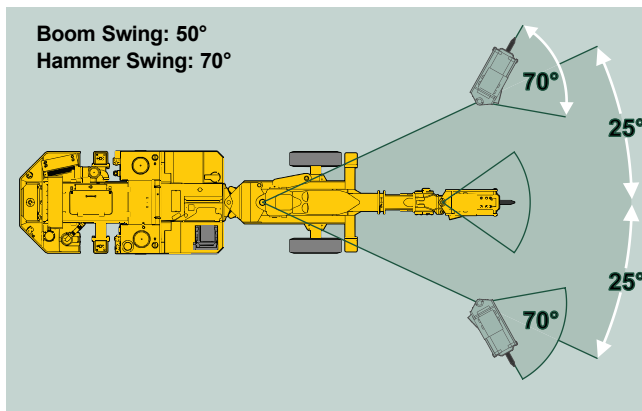
Recommended Drift Height

BTI recommends a minimum drift height with cab: 9'-10" (3 m).



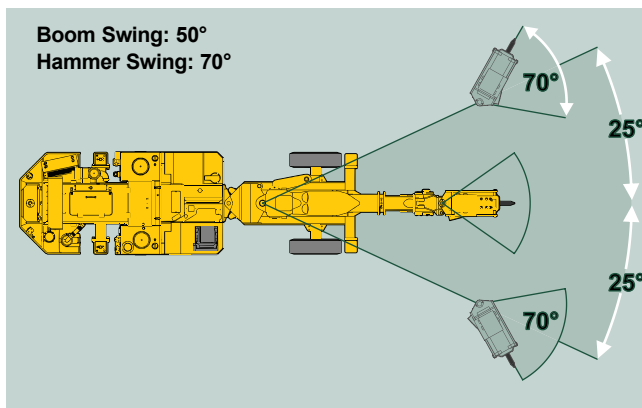
HFS16 Boom Swing

Boom Swing: +/- 30°
Hammer Swing: +/- 35°
Maximum Horizontal Reach: 27'-0" (8.2 m)
Optimum scaler coverage is attained within the vertical breaking coverage area.
While scaling, the carrier should be in a non-articulated state (in-line) with the front and rear jacks down.



HFS20 Boom Swing

Boom Swing: +/- 25°
Hammer Swing: +/- 35°
Maximum Horizontal Reach: 22'-3" (6.8 m)
Optimum scaler coverage is attained within the vertical breaking coverage area.
While scaling, the carrier should be in a non-articulated state (in-line) with the front and rear jacks down.



HFS25 Boom Swing

Boom Swing: +/- 25°
Hammer Swing: +/- 35°
Maximum Horizontal Reach: 32'-4" (9.9 m)
Optimum scaler coverage is attained within the vertical breaking coverage area.
While scaling, the carrier should be in a non-articulated state (in-line) with the front and rear jacks down.

LP15 CARRIER - COMMON FEATURES

- Notes:

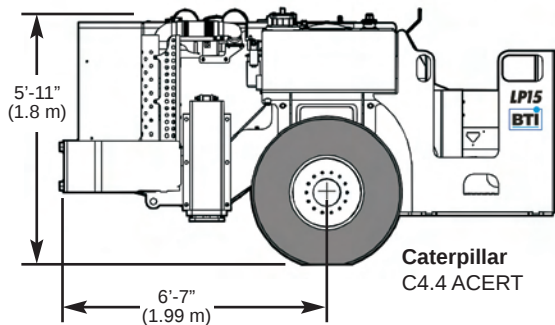
- ## HFS CARRIER CONFIGURATIONS

- Notes:

- 6 BREAKER TECHNOLOGY HFS SERIES (LP15) HAMMER FEED SCALER www.rockbreaker.com 10355-ENG-1009

POWERTRAIN GROUP OPTIONS

● Standard ▲ Optional



▲ **Engine:** Caterpillar C4.4 ACERT electronic four cylinder, turbocharged, intercooled diesel, Tier III, 127 hp (95 kW) @ 2200 rpm c/w fuel filter and water separator

Torque converter: Clark C2000 series

Transmission: Clark 20,000 series, long drop, remote mounted, electric shift

Three forward and three reverse speeds

Vehicle speeds with 12 x 20 tires @ 2200 rpm with standard axle ratio

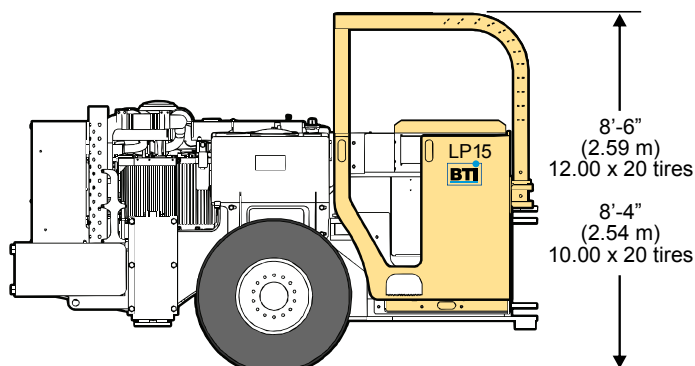
1st gear: 2.4 mph (3.9 kph) • 2nd: 6.2 mph (10.0 kph) • 3rd: 11.4 mph (18.3 kph)

Engine end axle: New Holland D65X, no-spin differential, wet disk SAHR emergency brakes, wet disk HASR service brakes.

Boom end axle: New Holland D65X, no-spin differential, wet disk SAHR emergency brakes, wet disk HASR service brakes.

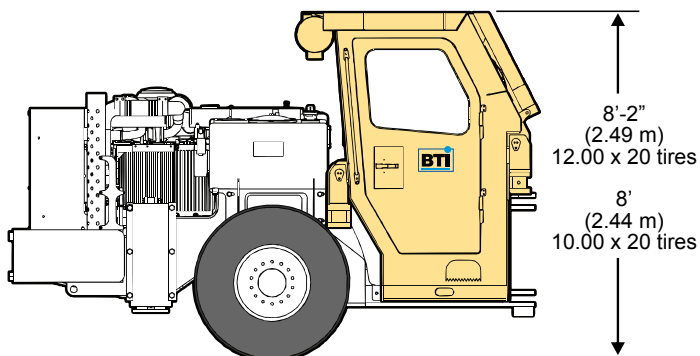
Drivelines: Mechanics 6C and 7C

PROTECTIVE STRUCTURES OPTIONS



▲ ROPS/FOPS Canopy

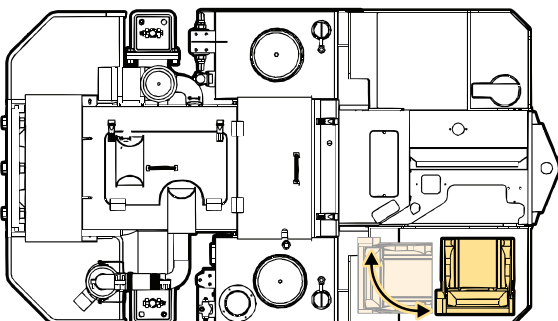
Tested and certified ROPS/FOPS canopy, complete with guard bars to help protect operator and passenger from dangerous fly-rock. Complete with swivel operator seat.



▲ ROPS/FOPS Cab

Full cab; covers operator, controls and passenger. Tested and certified ROPS/FOPS cab, complete with guard bars to help protect operator and passenger from dangerous fly-rock. Includes heavy-duty safety glass, wiper/washers, HVAC heat / air conditioning system, air pressurization system and operator swivel seat.

OPERATOR SEAT OPTIONS



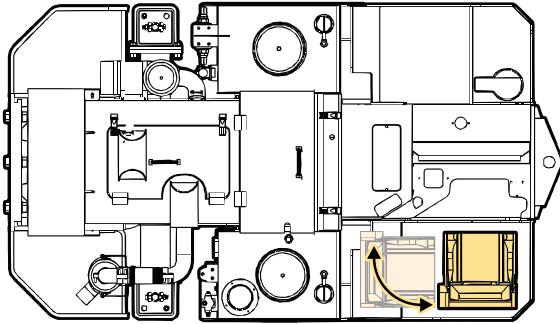
Operator Seat Options

● Swivel Suspension Seat ▲ Swivel Air Ride Seat

Mine duty swivel operator seat options available in suspension and air ride variations.

PASSENGER SEAT OPTIONS

● Standard ▲ Optional



● No Passenger Seat

Passenger Seat Options

- ▲ **Suspension Seat** (facing boom) ▲ **Air Ride Seat** (facing boom)

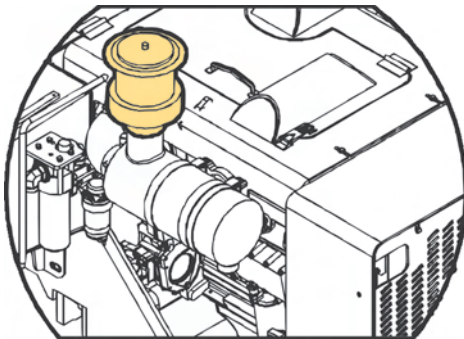
Mine duty passenger seat options available in fixed suspension and air ride variations.

Note: Not available with dust suppression system option.

AIR INTAKE SYSTEM OPTIONS

● Air Intake Filter

A dry element filter with safety element and replacement indicator.



▲ Air Intake Precleaner

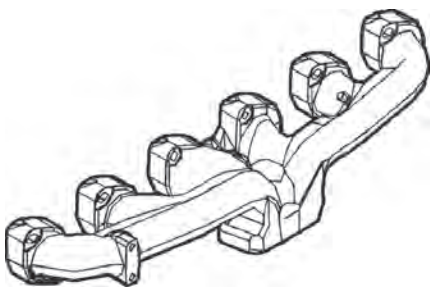
A dry element filter with safety element and replacement indicator, complete with a cyclone Pre-cleaner.

A pre-cleaner extends the life of your air filter by removing dirt and contaminants before they reach the filter and ejecting them automatically via the exhaust.

EXHAUST SYSTEM OPTIONS

● Catalytic Exhaust

A catalytic exhaust, purifier/silencer. No exhaust blanket.

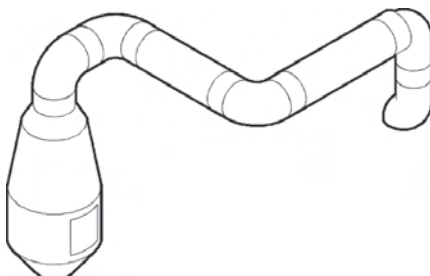


▲ Exhaust Manifold and Turbo Coating

Prevents fluids from igniting on hot engine and exhaust parts. High temperature performance: ideal for engine compartment components requiring long-term exposure to high temperatures.

Non-flammable. Protects personnel from burns.

Lowers ambient temperature; cooler engine compartment, less heat stress on operators and maintenance personnel.



▲ Exhaust System Wrap

Prevents fluids from igniting on exhaust parts. High temperature performance.

Non-flammable. Protects personnel from burns.

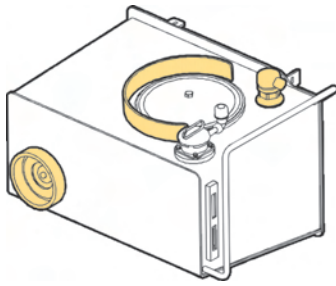
Lowers ambient temperature; cooler engine compartment, less heat stress on operators and maintenance personnel.

FUEL TANK OPTIONS

● Standard ▲ Optional

● Fuel Tank

50 gallon (189 liter) fuel tank, top fill.



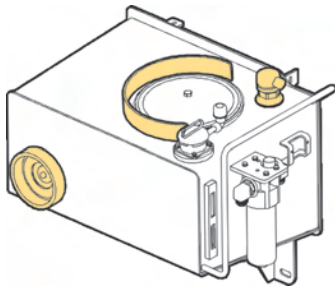
▲ Fuel Tank with Fast Fill

50 gallon (189 liter) fuel tank complete with Fast Fill filling system. Designed for on-site fast fluid transfer.

HYDRAULIC TANK OPTIONS

● Hydraulic Tank

50 gallon (189 liter) hydraulic tank, top fill, 4 psi pressurized cap.



▲ Hydraulic Tank with Fast Fill

50 gallon (189 liter) hydraulic tank complete with Fast Fill filling system. Designed for on-site fast fluid transfer.

TIRE OPTIONS

● Foam Filled Tires

12:00 x 20; 28 ply, foam filled

▲ Solid Tires

12:00 x 20

FIRE SUPPRESSION SYSTEM OPTIONS

● No Fire Suppression System

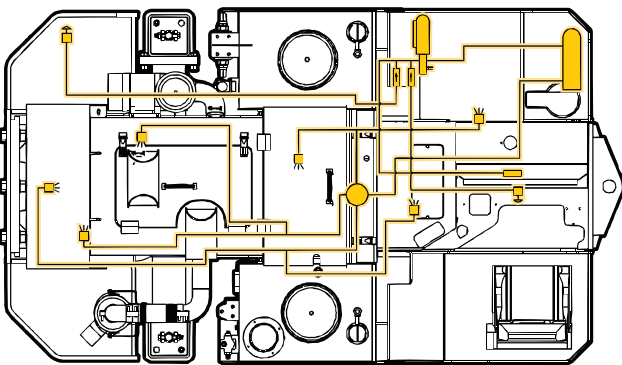
▲ Fire Extinguisher

1 x 20 lb (9 kg) fire extinguisher.



FIRE SUPPRESSION SYSTEM OPTIONS

● Standard ▲ Optional



▲ Ansul Fire Suppression

Ansul fire suppression system, 6 nozzle, complete with 2 actuators. Complete with 20 lb (9 kg) fire extinguisher.

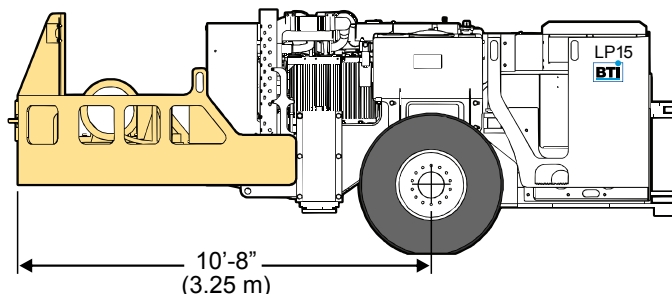
▲ Ansul Fire Suppression with Detection

Ansul fire suppression system, 6 nozzle, complete with 2 actuators. Includes a check fire detection and activation system. Complete with 20 lb (9 kg) fire extinguisher.

ELECTRIC POWER PACK OPTIONS

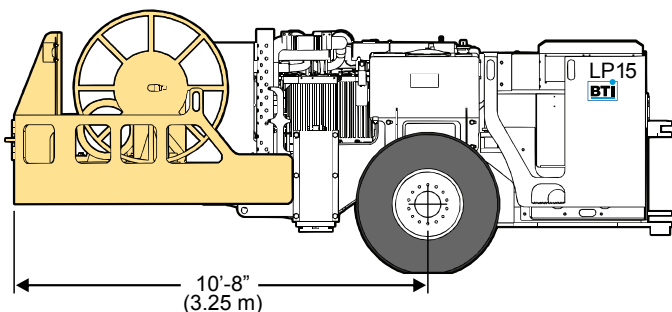
● No Power Pack

Standard bumper



▲ Power Pack

Power Pack, bumper mounted 60 hp (45 kW) electric motor, 100cc/rev pump c/w starter panel. Advise voltage at time of order. Cable reel not included.



▲ Power Pack

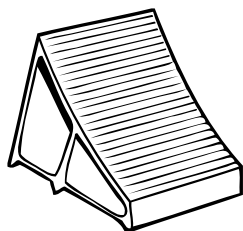
Power Pack, bumper mounted 60 hp (45 kW) electric motor, 100cc/rev pump c/w starter panel. Advise voltage at time of order. Cable reel not included.

WHEEL CHOCK OPTIONS

● No Wheel Chocks

▲ Wheel Chocks - aluminum

Complete with holder



BOOM GREASING SYSTEM OPTIONS

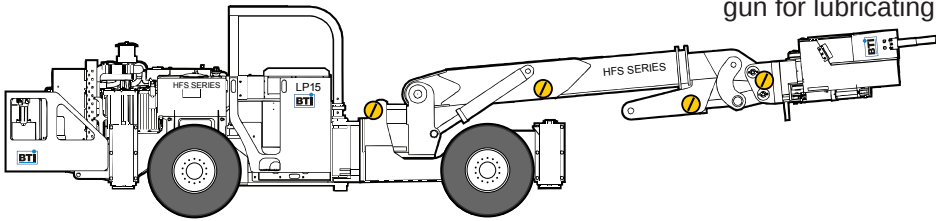
● Standard ▲ Optional

● Point of Use

Point of use grease zerk, no remote greasing points

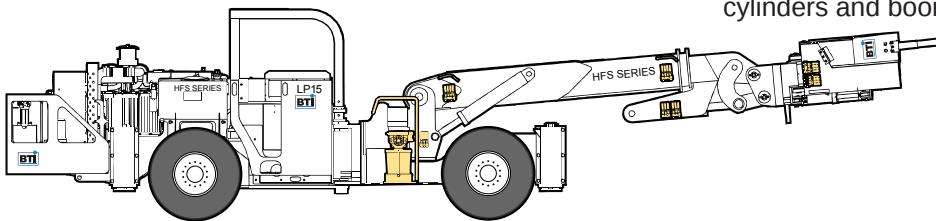
▲ Boom Manual Grease System

Manual greasing system, boom only. Strategically placed grease manifolds which are easily accessible by grease gun for lubricating all boom cylinders and boom pivot pins.



▲ Boom Auto-Grease System

Auto grease system, boom only. VDC grease pump with a 5 gal (19 liter) reservoir. Located at midship. Timer activated automatic grease injector manifolds for lubricating all boom cylinders and boom pivot points.



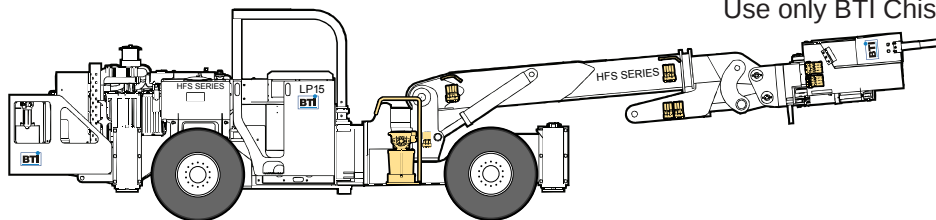
BREAKER GREASING SYSTEM OPTIONS

● Point of Use

Point of use grease zerk, no remote greasing points

▲ Breaker Auto-Lube System

Auto greasing system, breaker only. Complete with 2 gal (8 liter) 24 VDC electric driven grease pump and reservoir. Pump is activated when breaker is fired via remote control. Use only BTI Chisel Paste.

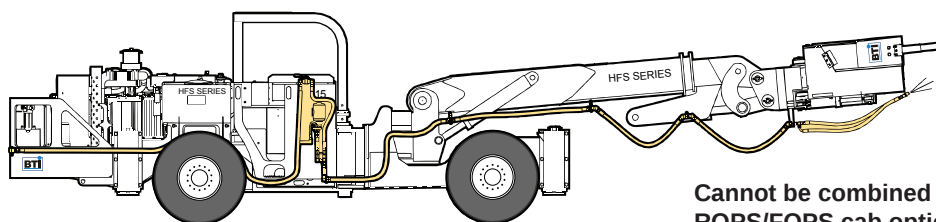


DUST SUPPRESSION SYSTEM OPTIONS

● No Dust Suppression System

▲ On-board System

Includes a 24 VDC water pump with a 35 gal (132 liter) stainless steel reservoir, mounted in engine end wing compartment. Strategically located spray nozzles suppress dust at the pick tool. Activation switch is located on the remote control box. The system can also be used with mine water.



Cannot be combined with passenger seat option and/or ROPS/FOPS cab option.

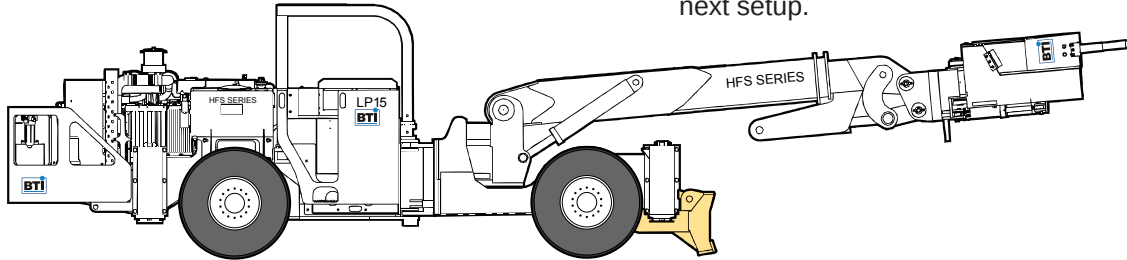
DOZER BLADE OPTION

● Standard ▲ Optional

● No Dozer Blade

▲ Dozer Blade

Dozer blade is 90" (2.3 m) wide, twin 5" (127 mm) hydraulic cylinders in a low profile mounting configuration. Dozer blade option used for cleaning fallen loose material, allowing the machine to advance closer to the face for the next setup.

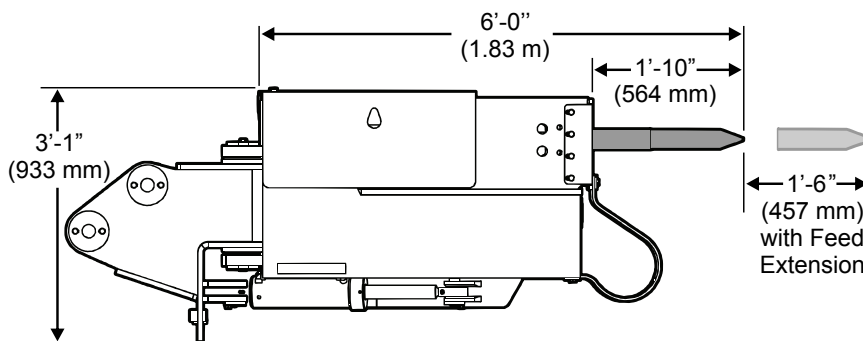
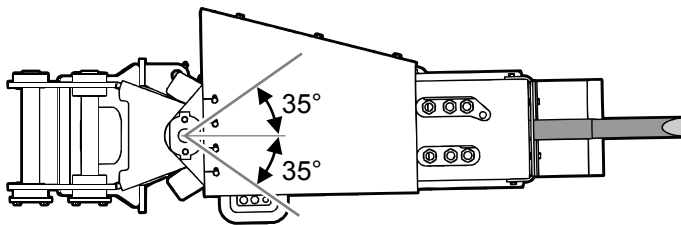
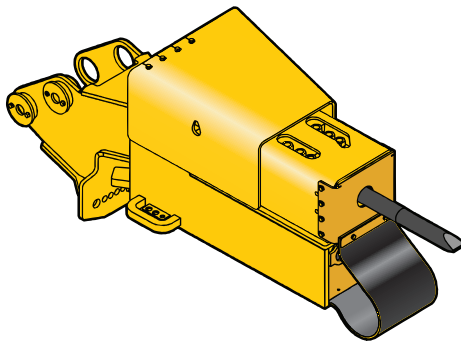


BREAKER OPTIONS

● TB335 BREAKER

Specifications

Energy Class:	850 ft-lb (1,152 joule)
CIMA Rating:	365 ft-lb (495 joule)
Blows per minute:	640 - 1060
Oil Flow required:	11 - 17 US gal/min (41 - 64 l/min)
Working Pressure:	1,400 - 2,275 psi (98 - 156 bar)
Operating Weight:	2,725 lb (1,235 kg)
Tool Diameter:	3.0 in (75 mm)
Tool Weight:	50 lb (22.6 kg)



10355-ENG-1009

All dimensions and specifications are subject to change without notice.

BREAKER TECHNOLOGY an Astec Industries Company

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