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## STOPEMASTER™ SERIES

Rock Drill and Blast Rig Technical Overview



**Gladiator Equipment**  
Inc.

 **BOART LONGYEAR™**

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# PRODUCTIVITY THROUGH SAFE, RELIABLE AND TRUSTED DESIGN

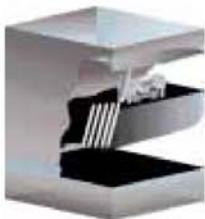
The StopeMaster™ Production Drill continues Boart Longyear's drive for continuous improvement. Along with low capital investment, the StopeMaster delivers increased productivity and decreased maintenance costs.

- Designed to bring maximum benefits in a compact, mobile package.
- Modular design with efficient dismantling and reassembly - it can be transported rapidly, even into captive areas, decreasing move time and increasing productivity.
- Excellent deep hole accuracy, through superior guidance of the durable feed system and Hercules centralizer.
- Consistent, high performance regardless of varying operator skill levels or conditions.
- Increased availability since routine maintenance can be done at the face, by operators without specialized training.
- Longer intervals between scheduled preventative maintenance servicing, proven through millions of feet of drilling experience.

Compact enough to get into the tightest drill situations:

- Cageable flexibility
- Level-to-level mobility
- Stope-to-stope versatility
- Optimum manoeuvrability
- Proven reliability

## Drilling Versatility



Drop Raise



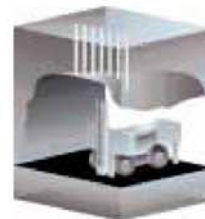
Cable Bolting



Fan Drilling



Ring Drilling



Parallel Drilling

## Hercules Rod Mate™ Centralizer

The Boart Longyear™ Hercules Centralizer has very few parts, positive centering and is low cost. The robust Hercules is less complicated, more durable and harder working.



- Cassette type centralizer for quick changes
- Withstands torsional loading
- Withstands axial loading from percussion, feed force and total drill string weight
- Positively centers the drill output shaft during coupling and collaring functions
- Low maintenance because there are no pins or bushings (only 12 parts)

## DRILLING ACCURACY

- 4 levelling jacks for stability
- 230° tramming control arm movement allows operator to position drill accurately and safely
- The dual 'in-line' hydraulic feed cylinders provide a balanced thrust to the center of the drill string
- Standard Helac positioner assembly and feed steel cylinder ensure feed assembly is held firm and true



# TECHNICAL INFORMATION

<b>Drill Specification:</b>		
	<b>Metric</b>	<b>U.S.</b>
Hydraulic Powerpack		
High efficiency electric motor	56 kW	75 hp
Tandem piston pump (Load sensing system)		
High pressure oil filter	8 micron	
Return oil filter	9 micron	
Main reservoir	208 liters	55 gallons
Auxiliary reservoir	85 liters	22 gallons
Electric oil transfer system (filtered)		
NEMA 4 electrical panel		
Water booster pump	3.5 kW	5 hp
Oil Lubricator (rock drill)	9 liters	2 gallons
Thermostatically controlled oil cooler (water/oil type)	40 kW	54 hp
Electric trailing cable	45 m	150 ft
Filter condition indicator flags		
Fire suppression system (4 nozzle, manually operated)		

<b>Minimum Requirements to Drill</b>		
	<b>Metric</b>	<b>U.S.</b>
Air flow @ 90 psi	0.15 m <sup>3</sup> /min	5 cfm
Water Flow	38 L/min	10 gpm
Note: Higher water flow is required on deeper, larger diameter downholes		

<b>Carrier</b>
4 wheel skid steer
Gradeability - 30%
4 wheel independent drive and braking (SAHR) system
Solid rubber tires on steel rims
Motion control valving for precise control, even over rough terrain
Quick disconnect brakes for easy towing



Drill Positioner			
		Metric	U.S.
Dump		Helac dump positioner	
Traverse	side to side travel (total)	1.5 m	60 in
		adjustable pads to compensate for wear	
		movement via dual opposed telescopic cylinders	
		Standard Helac positioner	
Rotation	dual motor/planetary drive system c/w SAHR braking system		
		heavy duty rotation slew bearing	
Feed Crowd	independent	0.74 m	29 in
		hydraulic cylinder driven	
Stabilizers			
4 hydraulic cylinders		Metric	U.S.
Stroke		0.51 m	20 in
Lift		0.25 m	10 in

Rock Drill Feed System			
		Metric	U.S.
9000DA Slim feed series feed assembly c/w:		Single hydraulic feed cylinder	
		Heavy duty steel frame	
		Replaceable wear pads	
		Front and rear steel cylinder	

Controls	
Modular designed components - for ease and speed of repair	
Direct acting feed positioning controls	
Umbilical remote for all drilling functions (24 VDC)	
Forward and aft tramping controls	

Lights	
24vdc sealed beam tramping lights (front and rear)	
Single 500 watt halogen drilling light (tripod mounted)	

Rock Drill	
HD155 - see HD155 Hydraulic rock Drill Tech Data	

Options			
		Metric	U.S.
Traverse widths		0.9 m, 1.2 m, 1.83 m	36 in, 48 in, 72 in
Portable fire extinguisher		9 kg	22 lbs
Ground fault monitor sub panel			
Laser hole alignment system			
Umbilical remote feed positioning system			
Onboard hydraulic oil filtering system (filter loop)			



# DIMENSIONS AND WEIGHTS

Overall Weight: 7258 kg (16,000 lb)		
	Metric	U.S.
Cage Transport (less traverse drill feed)		
Length	4010 mm	158 in
Width (wheels manually retracted)	1370 mm	54 in
Height	1800 mm	70 in
Weight	5230 kgs	11,500 lbs

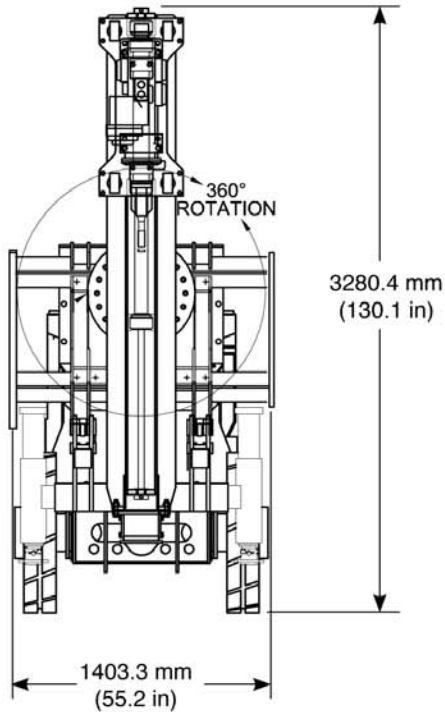
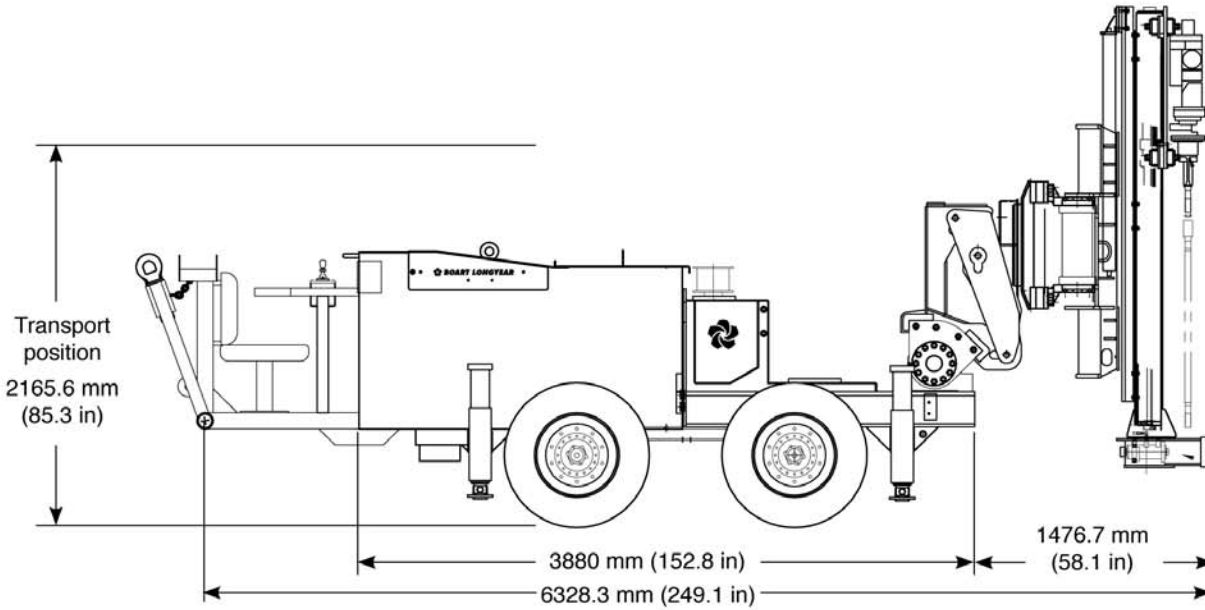
Raise Transport - Power Pack (largest module only)		
	Metric	U.S.
Length	2570 mm	101 inches
Width	1320 mm	52 inches
Height	1220 mm	48 inches
Weight	2225 kgs	4890 lbs

Drill Steel size			
	"A"	"B"	"C"
0.91 m (3 ft) Rod Change	2971 mm (117 in)	2540 mm (100 in)	2520 mm (99.2 in)
1.22 m (4 ft) Rod Change	3048 mm (120 in)	2843 mm (112 in)	2825 mm (111.2 in)
1.52 m (5 ft) Rod Change	3353 mm (132 in)	3150 mm (124 in)	3129 mm (123.2 in)



# StopeMaster™ Series Production Drill

Total Weight = 9600 kg (21,164.4 lbs)



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## MINING AND EXPLORATION DRILLING PRODUCTS



Percussive Bits



Percussive Rods



StopeMate™

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