



Maclean engineering & marketing co.
limited

In Hole/Longhole Rig

mem-837

blast holes/cable bolts



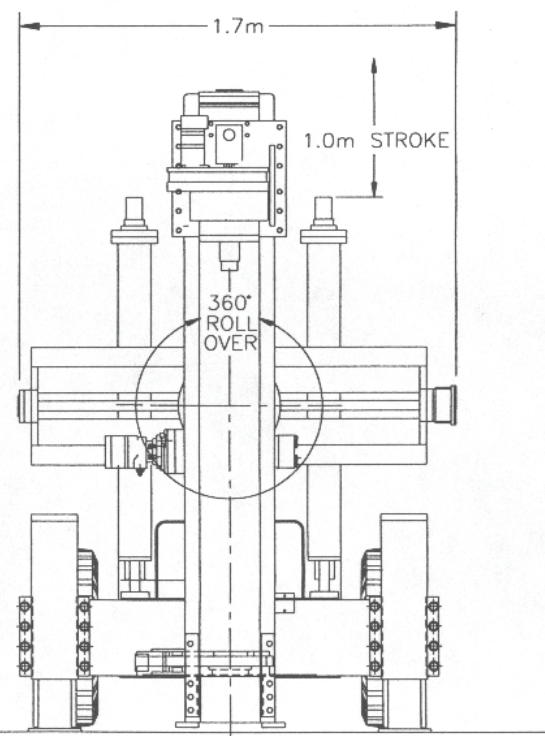
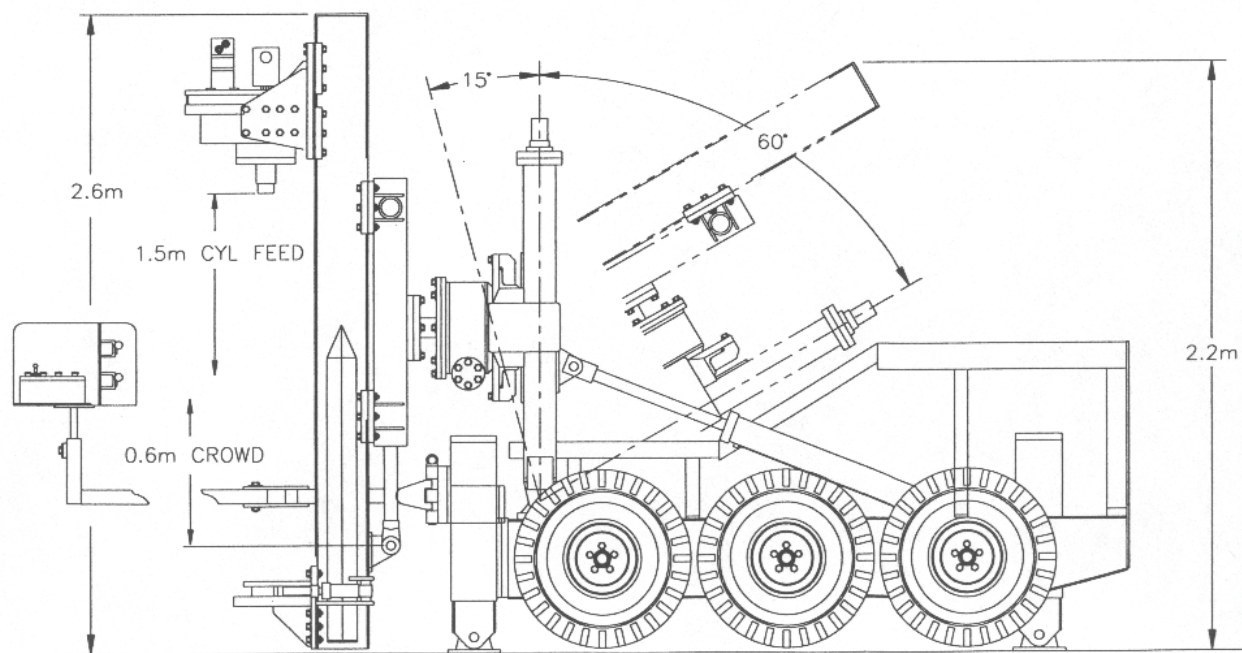
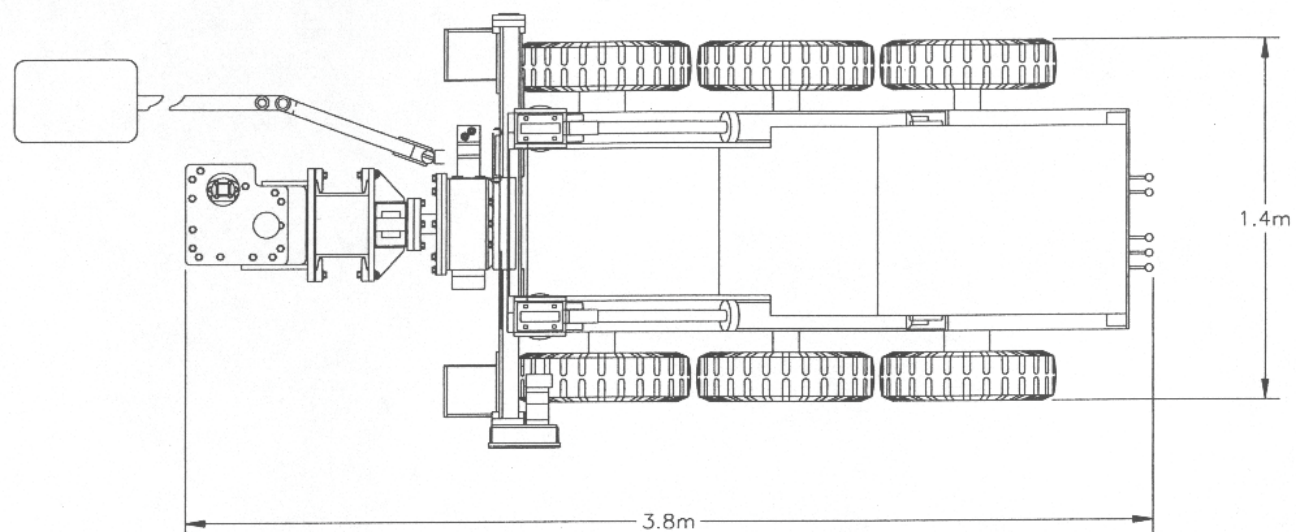
why?

Down the hole drilling has proven to be an extremely cost effective method of production drilling for Canadian underground mines. Simultaneously, modern ground control methods have increasingly involved the use of grouted cable bolts.

Unfortunately, the equipment to carry out the drilling required, has generally been sized for larger orebodies. As a result, the rigs are generally larger than can be utilized by a mine with an orebody whose design calls for smaller openings. Furthermore, these rigs are generally more expensive and, with two jumbos required, their cost effective amortization over a limited tonnage is not possible.

The solution to this problem is the combination In Hole Drill, Longhole Drill system described in this brochure. The drill rig, mounted on a six wheel skid steer carrier, allows positioning and anchorage of a feed for a 4" rotary head or a pneumatic drifter. The hydraulic positioning mechanism provides 360 degree rotation and 1.2' m side shift for hole alignment.

hydraulically positioned & anchored



electric powered skid steer carrier

COMPONENTS*

Skid Steer Carrier	
Width	1.4 m
Length	2.1 m
Power (2) hydraulic motors	4.5 kW
Overall gear reduction	1:39
Maximum travel speed	1.5 km/hr
Outrigger jacks	3
Power Pack	
Electric fan cooled totally enclosed	15 kW
Air/hydraulic option available	
Hydraulic System	
Pressure	140 bar
Capacity	60 l/m
Hydraulic tank, return filtration	150 l
Positioning & Anchoring Mechanism	
Overall width	1.7 m
Longitudinal dump off vertical	+15°, -60°
Anchoring cylinder stroke	1.0 m
Rotation	360°
Horizontal traverse	1.2 m
Crowd	0.6 m
Feed Cradle	
Travel	1.5 m
Tube/rod change	1.2 m
Feed force at 140 bar	0 to 3650 kgf
Overall length	2.6 m
4" In Hole Drill Rotary Head (102 mm)	
Variable speed	0 to 50 rpm
Variable torque to maximum	1500 Nm
Axial bearing capacity	18 tonnes
Hydraulic flow at 50 rpm	45 l/m
Pressure	140 bar
Overall gear ratio	1:4.1
Weight	140 kg
Pneumatic Longhole Drill Options to suit customer fleet	
Air consumption at 6 bar	170 l/s
Centralizers	
MEMCO hydraulically actuated double acting jaws for ITH drill tube or extension rods	

ADVANTAGES

- One man handles complete drilling function
- Universal anchorage allows ring, fan or bench drilling
- No hard physical labour when setting up or moving
- Low centre of gravity ensures stability
- Six wheel skid steer carrier ensures manoeuvrability
- Accurate effortless positioning and locking
- More than one hole from a set up
- Ensures parallelism in a line for drop raising
- Can drill conventional 54 mm longhole or 114 mm range
- Rigid anchorage guarantees accuracy of holes
- Rotary head designed especially for uphole drilling
- Can operate on high pressure air
- High torque infinitely variable hydraulic rotation
- Maximizes bit life

HEADING SIZE LIMITATIONS

- Minimum heading (0.9 m rod change) 2.4 x 2.4 m
- Maximum height for 360° drilling 3.7 m
- Can drill bench holes standing free

APPLICATIONS

- Ring drilling
- Benching
- Fan drilling
- Parallel longholing
- Undercutting for block caving
- Drop raising
- Cable Bolting

HANDLING SPECIFICATIONS

- Shipping weight 3700 kg
- Minimum breakdown size 1.4 x 0.9 x 2.6 m
- Shipping size 3.4 x 1.7 x 2.3 m
- Operating size 3.4 x 1.7 x 2.7 m

*The manufacturer reserves the right to change the specifications or design of this machine at any time without notice.



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