

DRILLING DEPTH GUIDELINES

The figures in these tables have been calculated, based on field experiences, and may be reasonably expected. Actual drilling capacity will depend on in-hole tools and conditions, drilling techniques and equipment used.

These variable factors will cause changes to depth obtained. No claim is made for products listed that are not produced by the Boart Longyear Company to perform at these depths.

Please refer to specification tables for available thrust, pull and torque to aid in estimating capacities for your specific application.

CORING SYSTEM	Practical Depth Capacity (meters)		
	<u>Horizontal</u>	<u>Vertical Down</u>	<u>Vertical Up</u>
LTK48 (AWJ 14.5kg/3m rods)	150	150	150
LTK60 (BWJ 18 kg/3m rods)	75	100	120
LTK48 (AWJLT 10.4kg/3m rods)	150	150	150
LTK60 (BWJLT 15.0kg/3m rods)	100	100	150

(These depth ratings have allowed at least 10Mpa for breaking of the core)

Skid Steer Drill Rig: CASE XT40 Prime Mover

Case 4-390 Diesel Engine
 Four cylinder, four stroke naturally aspirated
 45kW (60 HP) @ 2000 rpm

Peak Torque @ 1200 rpm - 240 Nm (177 lb ft)

ROPS/FOPS canopy

Fuel tank 83 litre (22 gal us)

Slew angle of positioner (manual) from straight forward ± 90 deg.

Hydraulic positioner range of movement from horizontal (two pin positions)

1st position - ± 50 deg

2nd position - from horizontal -10 deg to +90 deg.

(note repositioning feed frame 180 deg will result in ± 90 deg movement)

Modular Drill Rig:

Electric Motor	30kW, 1450 rpm, 50 Hz <i>(or to customer specification)</i>
Main Pump	Variable displacement Axial Piston Pump with pressure compensated load sensing control
Main Pump Flow	60 l/min
Operating Pressure	285 bar (28.5 Mpa)
Recirculating Pump	Gear Fixed Displacement
Recirculating Pump Flow	12 l/min
Operating Pressure	5 bar (72 psi)
Size	1400 long x 875 high x 600 wide
Control System	PLC

Feed Frame:

Feed Stroke	1100mm
Nominal Length	2185 (Travelling position) 2625 (working position, cylinder guard in place)
Max. Feed Force (Push)	30kN
Max. Feed Force (Pull)	30kN
Carriage Speed (fast)	0.5m/sec
Carriage Speed (fine)	0 - 0.2m/sec

Chuck:	B (LTK48/60)
Type	Closed hydraulically, Opened mechanically, Automatic synchronization with rod holder.
Opening (max)	60mm (2.36in)
Jaws	3 off tungsten carbide inserts
Rated axial ** holding capacity (max)	75.0 kN (16,600 lbf) Forward and Reverse rotation
Rated static torsional ** holding capacity (max)	520 Nm (383 lbf ft)

** at 7 Mpa (1015 psi) with new jaws and new rods

Rod Holder:	B (LTK48/60)
Type	Closed mechanically, Opened hydraulically, Automatic synchronization with chuck, Manual override
Opening (max)	60mm (2.36in)
Jaws	2 off tungsten carbide inserts
Rated axial holding capacity (max)	60.0 kN (13,300 lbf) Forward and Reverse rotation
Rated static torsional holding capacity (max)	1670 Nm (1230 lbf ft)

Chuck Speed:

Forward

0 - 2000 rpm

Continuously adjustable. Speeds will vary with oil type and temperature, and are only approximate

Reverse

0 - 500 rpm

Chuck output torque

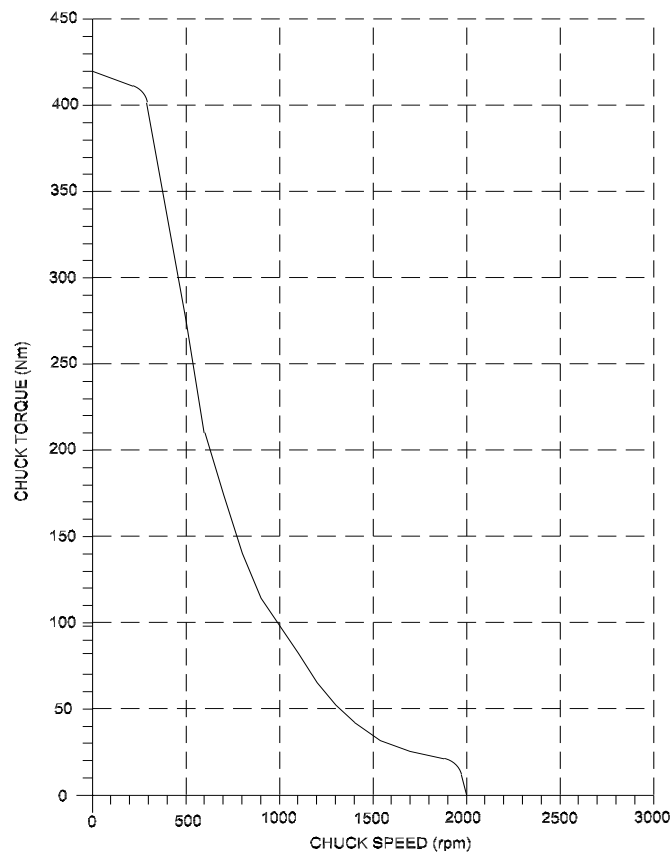
Forward

35 Nm (26 lbft) at 1500 rpm
275 Nm (203 lbft) at 500 rpm

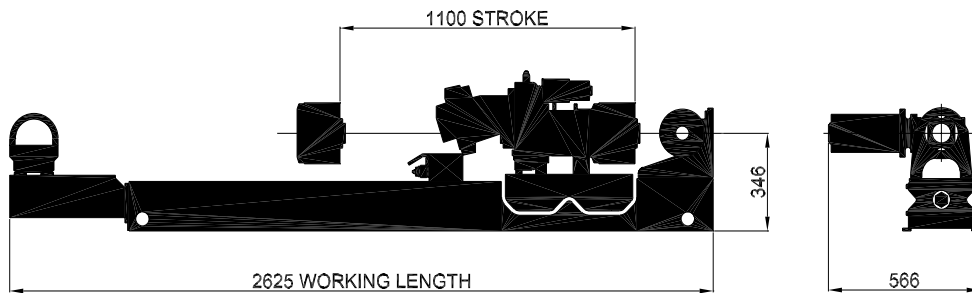
Reverse

1230 Nm (910 ftlb)
at 26 MPa (3770 psi)
with break-out device

Dynamometer Produced Chuck Output Curve:

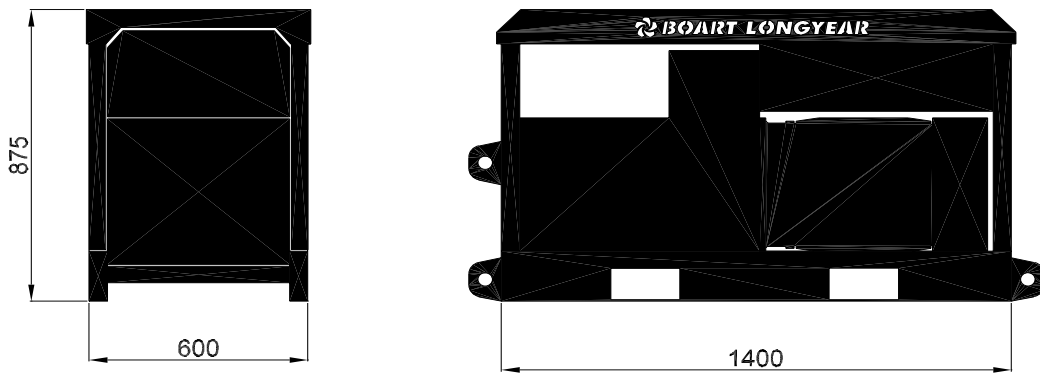


LM30 FEED FRAME - 1.1m STROKE



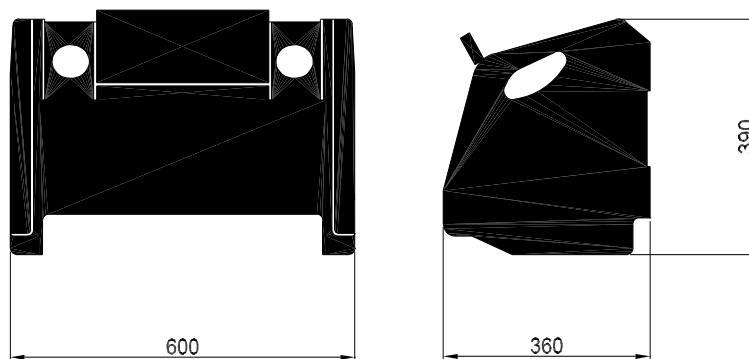
Feed Frame Weight	240kg	(528lb)
Rotation Unit c/w Chuck	160kg	(352lb)
Rod Holder Assembly	33kg	(73lb)

LM30 MODULAR DRILL



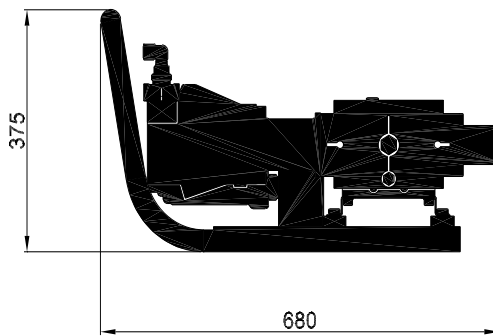
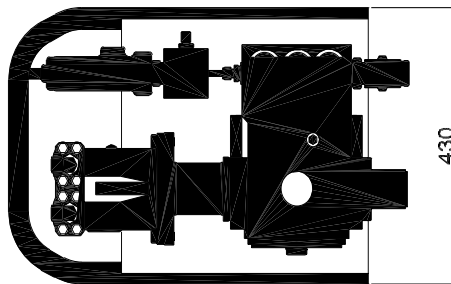
Power Pack Weight	700kg	(1540lb) - No oil
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LIGHTWEIGHT CONTROL PANEL



Control Panel Weight	25kg	(55lb) - without hoses
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WATER PUMP 712



Water Pump Weight 67kg (150lb)