



Dedicated to Our Customers' Success.



3110TM Long Mast



3110CM Long Mast

3110 Series

Truck & Crawler Mounts

**Made in America
Best in the World**

3110 Technical Specifications

MECHANICAL			HYDRAULIC	
Torque	120,000 lb-ft	163 kNm	120,000 lb-ft	163 kNm
Spinoff	147 RPM	147 RPM	70 RPM	60 RPM
Recommended Drill Diameter	48-96 in	1,219-2,438 mm	48-96 in	1,219-2,438 mm
Crowd Down • Pull up	50,000 • 30,000 lbs	222 • 133 kN	50,000 • 30,000 lbs	222 • 133 kN
Kelly Winch Line Pull	32,000 lbs	142 kN	32,000 lbs	142 kN
Kelly Winch Line Speed • Cable Size	180 ft/min • 7/8" dia	54.9 m/min • 22 mm	180 ft/min • 7/8" dia	54.9 m/min • 22 mm
Service Winch Line Pull • Cable Size	18,000 lbs • 5/8" dia	80 kN • 16 mm	18,000 lbs • 5/8" dia	80 kN • 16 mm
Power Unit	200 HP		200 HP	
Transmission Speeds	4 FWD/ 4 REV		Variable	

3110 Standard Features

Rotary	Double reduction with spur gear primary and bevel ring gear and pinion. Roller or slip-type kelly drive.
Mast	Lattice type structure. Mast is elevated with two parallel hydraulic cylinders allowing positioning 9° past vertical.
Kelly	Telescoping multi-element. Customized Kelly stub per customer specification.
Kelly Winch	"Controlled freefall" when lowering and 2 speed 32,000 lb raise.
Service Winch	18,000 lb. power-up/power-down.
Rotating Frame	Enables 360° swing. Rotation provided by two hydraulic motors and gear boxes with an integral braking system.
Slide Frame	88" slide on truck mount and 42" on crawler mount, increases drill radius for maximum drill radius of 165"(13'9").
Base Frame/ Outriggers	Outriggers are out/down on cab and drill end. Outriggers are powered by upper unit and controls are at operator's position. (Truck Only)
Truck Mount (TM)	8x4 crane type carrier, typical gross vehicle weight (GVW) rating is 86,000-90,000 lbs.
Crawler Mount (CM)	11'11" wide x 15'3" long crawler undercarriage with triple grouser shoes. Carbody incorporates a 5 degree side-tilt adjustment. Each track is controlled interdependently with 2-speed track motors.

Note: Both the truck mount and crawler mount are offered with a mechanical or hydraulic driven rotary, allowing a wider range of kelly options.

3110 Additional Options

- Open back mast for air drilling
- Reaction jack (Crawler Only)
- Solid inner Kelly bar
- Man hoist winch
- Mast height variations from low clearance to tall configurations
- Multiple kelly bar options available
- Night lighting
- Operator's cab with optional heater and air conditioning
- Cold weather operation package

Drill Depths - Mechanical Rotary Drive

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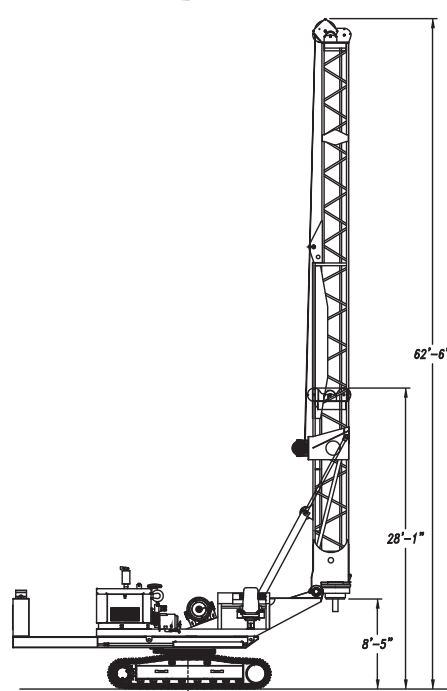
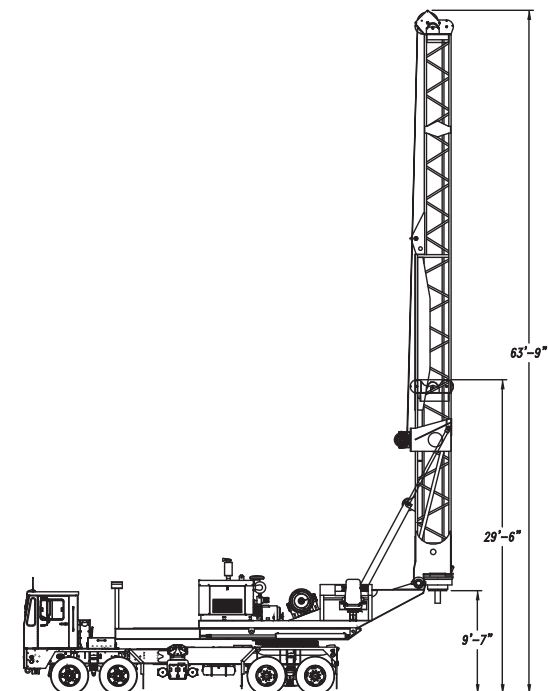
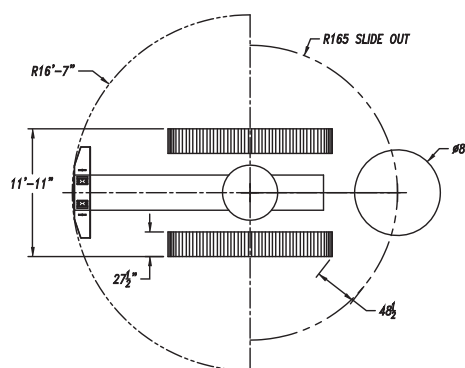
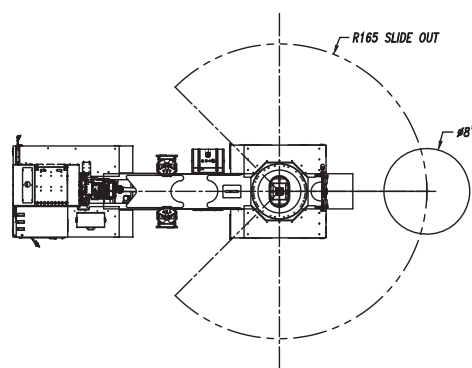
KELLY BAR				MAST HEIGHT							
				29'6" 9 m	34'6" 10.5 m	53'8" 16.4 m	58'8" 17.9 m	63'8" 19.4 m	68'0" 20.7 m		
BAR TYPE	BARS	BAR DIMENSIONS		KELLY PENETRATION DEPTH							
Square	2	8/6 in	203/152 mm	-	-	-	-	56 ft 17.1 m	66 ft 20.1 m	76 ft 23.2 m	86 ft 26.2 m
Square	3	10/8/6/ in	254/203/152 mm	37 ft 11.3 m	52 ft 15.8 m	86 ft 26.2 m	101 ft 30.8 m	116 ft 35.4 m	131 ft 39.9 m		
Square	4	10/8/6/4.25 in	254/203/152/108 mm	53 ft 16.2 m	73 ft 22.3 m	116 ft 35.4 m	136 ft 41.5 m	156 ft 47.5 m	176 ft 53.6 m		

Note: Kelly penetration depth does not include tool length. Mast heights will vary slightly between crawler and truck mounted configurations (due to chassis height).

3110 Drill Depths - Hydraulic Rotary Drive

KELLY BAR				MAST HEIGHT			
				29 ft-6 in	9 m	63 ft-9 in	19.4 m
BAR TYPE	BARS	BAR DIMENSIONS		KELLY PENETRATION DEPTH			
Square	2	8/6 in	203/152 mm	-	-	76 ft	23.2 m
Square	3	10/8/6 in	254/203/152 mm	37 ft	11.3 m	116 ft	35.4 m
Square	4	12/10/8/6 in	305/254/203/152 mm	53 ft	16.2 m	156 ft	47.5 m
Square	5	12/10/8/6/4.25 in	305/254/203/152/108 mm	69 ft	20 m	-	-
Round	2	12/10 in	305/254 mm	-	-	76 ft	23.2 m
Round	3	16/12/8 in	406/305/254 mm	-	-	116 ft	35.4 m
Round	4	16/14/11.75/9.62 in	406/356/298/244 mm	45 ft	13.7 m	-	-
Round	5	16/14/11.75/9.62/7.62 in	406/356/298/244/194 mm	58 ft	17.7 m	-	-

Note: Kelly penetration depth does not include tool length.



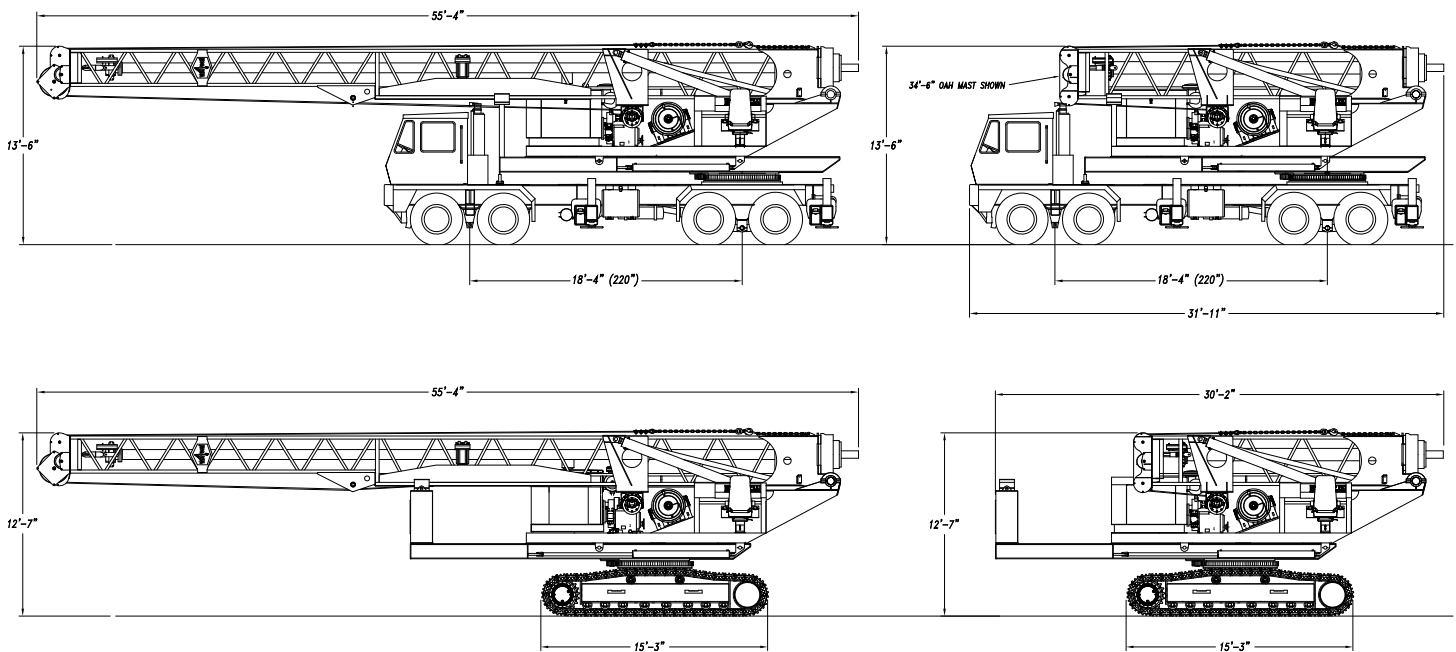
3110 Maximum Drill Radius

MOUNT	DRILL RADIUS (MAXIMUM)	TOOL CLEARANCE	SLIDE	MAST TILT (L/R/OB)
Truck (TM)	165 in 4,191 mm	110 in 2,794 mm	88 in 2,235 mm	0° / 0° / 9°
Crawler (CM)	165 in 4,191 mm	103 in 2,616 mm	42 in 1,067 mm	5° / 5° / 9°

3110 Travel Configurations

MOUNT	MAST HEIGHT*		WEIGHT*		TRAVEL HEIGHT		TRAVEL LENGTH		TRAVEL WIDTH	
Truck (TM)	29 ft-6 in	9.0 m	83,000 lbs	37,650 kgs	13 ft-6 in	4.1 m	20 ft	6.1 m	9 ft	2.7 m
Truck (TM)	53 ft-9 in	16.4 m	85,000 lbs	38,555 kgs	13 ft-6 in	4.1 m	45 ft	13.7 m	9 ft	2.7 m
Truck (TM)	58 ft-9 in	17.9 m	87,000 lbs	39,460 kgs	13 ft-6 in	4.1 m	50 ft	15.2 m	9 ft	2.7 m
Truck (TM)	63 ft-9 in	19.4 m	89,000 lbs	40,370 kgs	13 ft-6 in	4.1 m	55 ft-5 in	16.9 m	9 ft	2.7 m
Crawler (CM)	28 ft-6 in	8.7 m	90,000 lbs	40,823 kgs	12 ft-7 in	3.8 m	30 ft-6 in	9.3 m	11 ft-11 in	3.6 m
Crawler (CM)	63ft-0 in	19.2 m	95,000 lbs	43,091 kgs	12 ft-7 in	3.8 m	55 ft-5 in	16.9 m	11 ft-11 in	3.6 m

*Truck mount weights and heights will vary slightly due to truck chassis height and configuration.



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