

**TOUGHER > FASTER > SIMPLER**



**1100**

**NOMINAL TORQUE**

52,000 ft-lb, 71 kNm

**ACTUAL TORQUE**

43,000 ft-lb, 58 kNm

**SPIN OFF** 200 rpm

**LINEPULL** 18,000 lb, 80 kN

**WEIGHT** 45,000 lbs, 20 mT

**MAX DEPTH** 96 ft, 29 m

**WATSONUSA.COM**

800-927-8486



100% WATSON OWNED

1100TM Short Mast

**DRILL MORE HOLES**

## 1100 Technical Specifications

	MECHANICAL		HYDRAULIC	
Nominal Torque	52,000 ft-lb	71 kNm	52,000 ft-lb	71 kNm
Actual Torque	43,000 ft-lb	58 kNm	43,000 ft-lb	58 kNm
Spinoff	200 RPM	200 RPM	130 RPM	130 RPM
Recommended Tool Diameter	24-48 in	610-1,219 mm	24-60 in	610-1,524 mm
Crowd Down • Pull up	21,700 • 10,000 lbs	97 • 44 kN	21,700 • 10,000 lbs	97 • 44 kN
Kelly Winch Line Pull	18,000 lbs	80 kN	18,000 lb	80 kN
Kelly Winch Line Speed • Cable Size	160 ft/min • 5/8" dia	48.8 m/min • 16 mm	160 ft/min • 5/8" dia	48.8 m/min • 16 mm
Service Winch Line Pull • Cable Size	4,500 lbs • 1/2" dia	20 kN • 13 mm	4,500 lbs • 1/2" dia	20 kN • 13 mm
Engine Power	140 HP Tier 4 Final		140 HP Tier 4 Final	
Transmission Speeds	Mechanical - 6 FWD/ 3 REV		Variable	

## 1100 Standard Features

<b>Rotary</b>	Single reduction with heavy-duty spiral bevel ring gear and pinion (Mechanical).
<b>Mast</b>	Box type structure. Mast is elevated with two hydraulic cylinders allowing positioning 10° past vertical and 10° on each side.
<b>Kelly</b>	Telescoping multi-element. Customized Kelly stub per customer specification.
<b>Kelly Winch</b>	"Controlled freefall" when lowering and 2-speed, 18,000 lb. raise.
<b>Service Winch</b>	4,500 lb. power-up/power-down.
<b>Rotating Frame</b>	Rotation provided by a hydraulic motor and planetary with integral braking system. Enables 360° swing on crawler rigs.
<b>Slide Frame</b>	24" slide (36" on Hydraulic) increases maximum drill radius up to 118" (9' 10").
<b>Paint</b>	Customer selects paint color to match equipment fleet.
<b>Base Frame/ Outriggers</b>	Outriggers are out/down on cab end and stabilizers on drill end. Outriggers are powered by upper unit and controls are at operator's station (Truck Only).
<b>Truck Mount (TM)</b>	6x4 truck, typical gross vehicle weight (GVW) rating is 54,000lb.
<b>Crawler Mount (CM)</b>	8' 6" x 11' 5" crawler type undercarriage with 20" track pads. Hydraulically driven, 2-speed with independently controlled tracks.

Note: Both the Truck Mount and Crawler Mount are offered with a mechanical or hydraulic driven rotary, allowing a wider range of kelly options.

## 1100 Additional Options

<b>Service Winch</b>	8,500 lbs.
<b>Outriggers</b>	A-Frame located on drill end.
<b>Kelly Bar</b>	Solid 4.25" inner in lieu of hollow.
<b>Kelly/Mast Configurations</b>	Custom combination of mast height and bar set to meet customer drill depth needs. Consult factory for alternate depths.
<b>Operator's Cab</b>	High visibility cab with heat and A/C available.
<b>Miscellaneous</b>	Base extensions, toolboxes, water tank.

## 1100 Depths - Mechanical Rotary Drive

KELLY BAR				MAST HEIGHT									
				22 ft-10 in 6.9 m		24 ft-10 in 7.6 m		29 ft-10 in 9.1 m		40 ft-10 in 12.4 m			
BAR TYPE	BARS	BAR DIMENSIONS		KELLY PENETRATION DEPTH									
Square	2	6/4.25 in	152/108 mm	11 ft	3.3 m	15 ft	4.7 m	25 ft	7.6 m	45 ft	13.7 m		
Square	3	7/5/3.5 in	178/127/89 mm	19 ft	5.8 m	25 ft	7.6 m	40 ft	12.2 m	-	-		

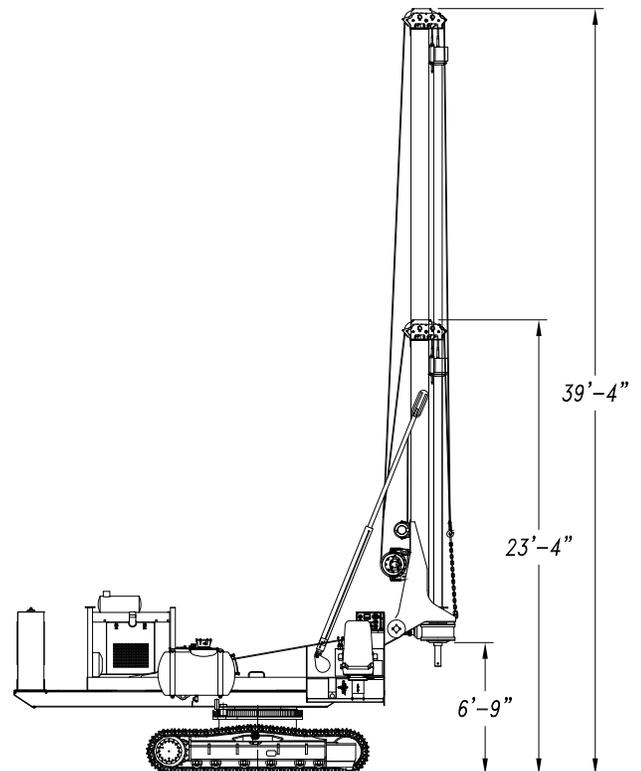
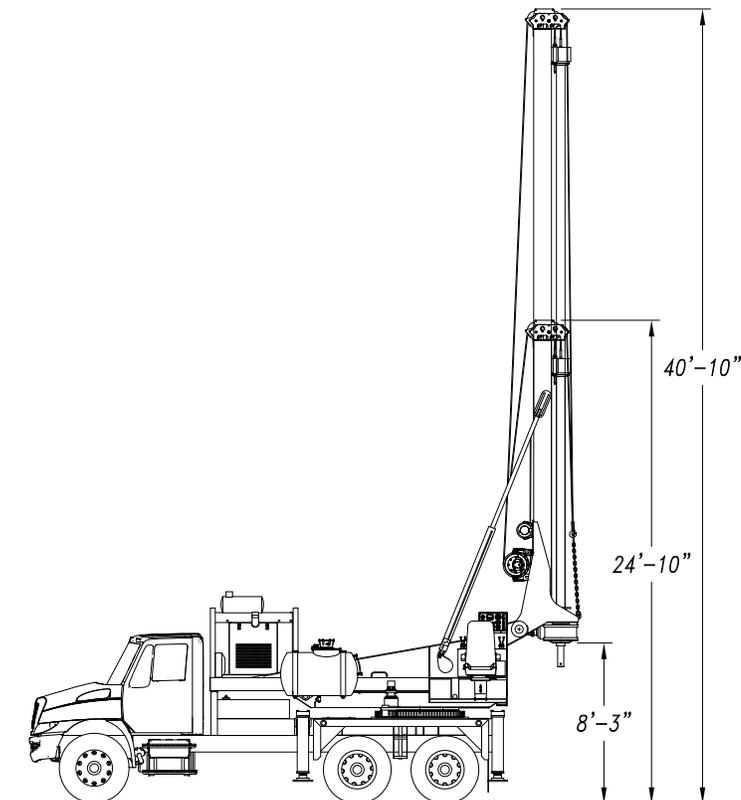
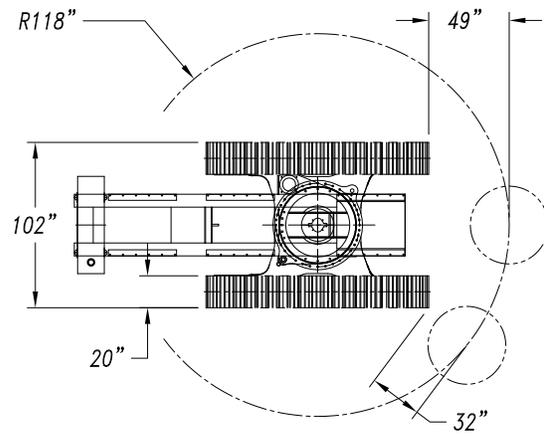
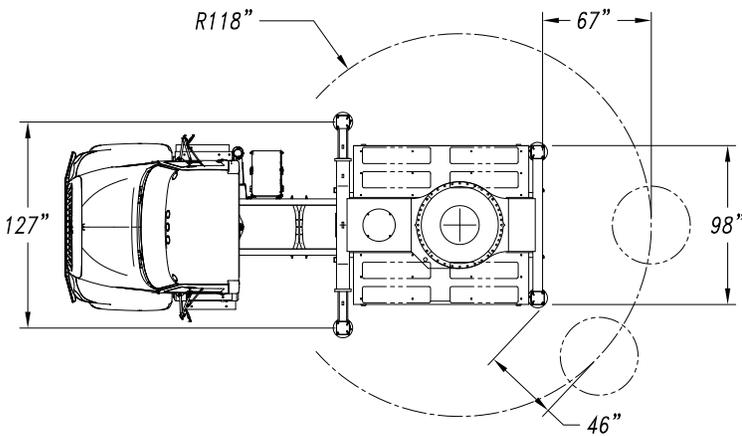
Note: Kelly penetration depth does not include tool length.

# 1100 Drill Depths - Hydraulic Rotary Drive

KELLY BAR				MAST HEIGHT			
				22 ft-10 in 6.9 m	24 ft-10 in 7.6 m	29 ft-10 in 9.1 m	40 ft-10 in 12.4 m
BAR TYPE	BAR	BAR DIMENSIONS		KELLY PENETRATION DEPTH			
Square	2	6/4.25 in	152/108 mm	11 ft 3.3 m	15 ft 4.7 m	25 ft 7.6 m	45 ft 13.7 m
Square	3	8/6/4.25 in	203/152/108 mm	18 ft 5.5 m	25 ft 7.6 m	40 ft 12.2 m	71 ft 21.6 m
Square	4	10/8/6/4.25 in	254/203/152/108 mm	29 ft 8.8 m	37 ft 1.3 m	55 ft 16.8 m	96 ft 29.3 m
Round	3	12.75/10.75/8.62 in	324/273/219 mm	18 ft 5.5 m	24 ft 7.6 m	39 ft 11.9 m	69 ft 21.0 m
Round	4	12.75/10.75/8.62/6.62 in	324/273/219/168 mm	28 ft 8.5 m	35 ft 11.27 m	52 ft 15.8 m	94 ft 28.7 m

Notes: 1) Kelly penetration depth does not include tool length.

2) Mast heights and drill depths shown are for truck mounted rigs. Crawler rigs are 18" shorter in height. Add 18" to depths shown for crawler mounted rigs.





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100% WATSON OWNED

# MODEL 1100



1100CM Short Mast



1100TM Long Mast

## 1100 Travel Configurations

MOUNT	MAST HEIGHT*		WEIGHT*		TRAVEL HEIGHT		TRAVEL LENGTH		TRAVEL WIDTH	
Short Mast Truck (TM)	24 ft-10 in	7.6 m	40,540 lbs	18,389 kgs	13 ft-3 in	4.0 m	27 ft-5 in	8.4 m	8 ft-2 in	2.5 m
Long Mast Truck (TM)	40 ft-10 in	12.4 m	44,840 lbs	20,339 kgs	12 ft-9 in	3.9 m	33 ft-8 in	10.3 m	8 ft-2 in	2.5 m
Long Mast Crawler (CM)	39 ft-4 in	12.1 m	32,310 lbs	14,656 kgs	11 ft-3 in	3.4 m	33 ft-8 in	10.3 m	8 ft-6 in	2.6 m
Short Mast Crawler (CM)	23 ft-4 in	7.3 m	30,000 lbs	13,608 kgs	11 ft-6 in	3.5 m	21 ft-7 in	6.6 m	8 ft-6 in	2.6 m

\*Truck mount weights and heights are approximate.

