

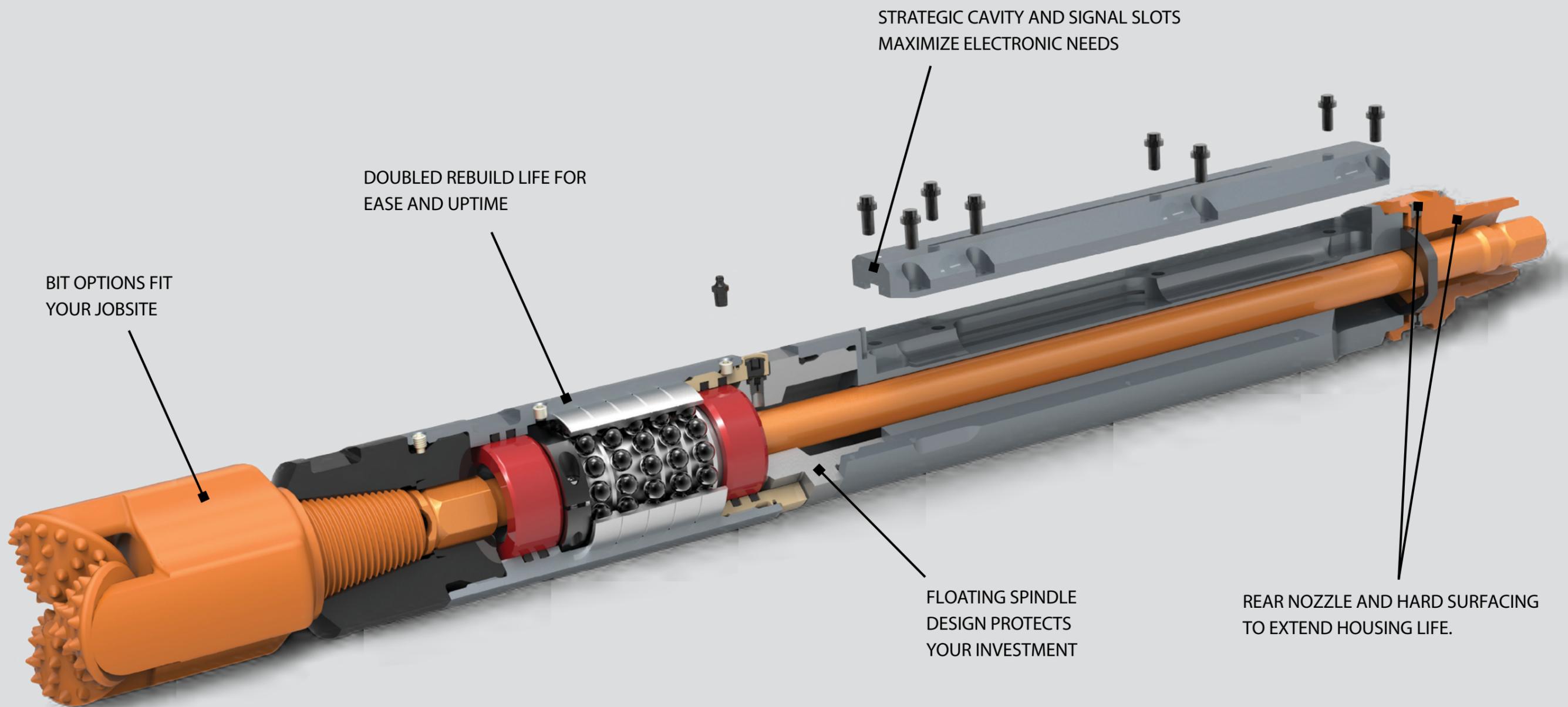


ALL TERRAIN HDD Horizontal Directional Drills



TRENCHLESS







CRUSH THROUGH ROCK

**TRI-CONE ROCK BIT
ROCKMASTER ALL TERRAIN**

BACKREAMERS

**BUILT BETTER TO
LAST LONGER.**

ROCK MONSTER BACKREAMERS



JT30 ALL TERRAIN HORIZONTAL DIRECTIONAL DRILL



TRENCHLESS

Rotation Speed
Rotation Torque
Pull - Back Force } **Power-at-the-Point**



Reliable Production Rock & ALL TERRAINS



A comfortable operator is a more productive operator, which is why we've equipped the JT30 All Terrain Horizontal Directional Drill operator's station with a cutting-edge design. It features:

- Open-top vise wrenches are angled toward the operator for an excellent view of the tool joint when making up and breaking out pipe.
- Industry-exclusive, double-pivot drill frame allows steep entry angles without raising the tracks off the ground; enhances operator comfort because operator's station stays level.
- Optional cab features climate-controlled heat and air, for greater operator comfort and productivity.
- Operator's station features intuitive joystick that controls all drilling functions, ergonomic seat, color LCD engine display, and an excellent view of all drill functions.



JT30 ALL TERRAIN HORIZONTAL DIRECTIONAL DRILL

1 Dual independent rear stabilizers are easy to set up and enhance stability on uneven or rough terrain.

2 Hinged main and rear hoods allow easy access to all service points in the engine and mud pump.

3 Among the quietest drills in its class, for less environmental impact, less disruption in urban areas and greater operator comfort.

4 Open-top vise wrenches are angled toward the operator for an excellent view of the tool joint when making up and breaking out pipe.

6 160-gross-hp (119-kW), Tier 4 engine is the most powerful in its class; full power to all machine functions greatly enhances productivity.

5 Patented All Terrain technology has the industry's most advanced inner-rod design, proven to increase production in hard rock and difficult terrain.



You asked for a drill that tackles the toughest conditions, from solid rock to cobble and hard dirt. You wanted a compact design to operate in the tightest spots. You needed a patented, inner-rod design to save you time, and a mechanical drive to save you money on drilling fluid and transporting water. We delivered it all, and much more, with the Ditch Witch® JT30 All Terrain Horizontal Directional Drill.

WE'RE IN THIS TOGETHER.





JT30 ALL TERRAIN HORIZONTAL DIRECTIONAL DRILL

1 Exclusive assisted makeup and breakout feature saves wear on pipe threads and reduces operator fatigue.



2 Add-a-pipe feature places individual pipes into loading system without lifting pipe into the top of the pipe box

3 Field-proven, heavy-duty rack and pinion thrust drive; welded-on double rack offers minimum maintenance and maximum reliability.



4 Optional wireless remote ground drive increases flexibility when moving the rig and allows fine-tuning of bore path placement.

6 SaverLok® System provides the tightest connection and best protection against wear and tear on the drill pipe and drive system; easy to install and replace, requiring no special tools.



5 Exclusive, dual-pivot drill frame allows steep entry angles without raising tracks off the ground—no need to readjust the machine.

7 Heavy-duty anchor system secures machine in difficult terrain so you can push/pull with full machine thrust.

JT30 ALL TERRAIN HORIZONTAL DIRECTIONAL DRILL SPECIFICATIONS

	U.S.	METRIC
OPERATION		
Spindle speed, max	225 rpm	
Spindle speed, max (AT inner spindle)	400 rpm	
Spindle torque, max	4,000 ft-lb	5420 N-m
Spindle torque, max (AT inner spindle)	800 ft-lb	1080 N-m
Carriage thrust travel speed	120 fpm	37 m/min
Carriage pullback travel speed	120 fpm	37 m/min
Thrust force (AT mode)	24,800 lb	110 kN
Pullback force	30,000 lb	133 kN
Bore diameter (AT w/Rockmaster™ 822)	4.75 in	121 mm
Bore diameter (AT w/Rockmaster 86)	5.5 in	140 mm
Ground travel speed		
Forward	2.4 mph	3.9 km/h
Reverse	2.4 mph	3.9 km/h
POWER (TIER 3) (LRC)		
Engine	Cummins® QSB4.5	
Fuel	Diesel	
Cooling medium	Liquid	
Injection	Direct	
Aspiration	Turbocharged, charge air cooled	
Number of cylinders	4	
Displacement	275 in³	4.5 L
Bore	4.21 in	107 mm
Stroke	4.88 in	124 mm
Manufacturer's gross power rating	148 hp	110 kW
Rated speed	2,300 rpm	
Peak gross power @ 2,000 rpm	156 hp	116 kW
Emissions compliance	EPA Tier 3	EU Stage IIIA
POWER (TIER 4)		
Engine	Cummins QSB4.5	
Fuel	Diesel	
Cooling medium	Liquid	
Injection	Direct	
Aspiration	Turbocharged, charge air cooled	
Number of cylinders	4	
Displacement	275 in³	4.5 L
Bore	4.21 in	107 mm
Stroke	4.88 in	124 mm
Manufacturer's gross power rating	160 hp	119 kW
Rated speed	2,300 rpm	
Peak gross power @ 2,200 rpm	163 hp	122 kW
Emissions compliance	EPA Tier 4	EU Stage IV
DIMENSIONS		
Transport length	221 in	5.61 m
Width	80 in	2.03 m
Width, w/cab	89 in	2.26 m
Transport height	94 in	2.39 m
Weight, w/out pipe	17,660 lb	8010 kg
Weight, w/cab	18,560 lb	8418 kg
Entry angle	10-16°	
Angle of approach	19°	
Angle of approach, w/cab	15°	
Angle of departure	18°	

	U.S.	METRIC
DRILLING FLUID SYSTEM		
Pressure, max	1,500 psi	103 bar
Flow, max	50 gpm	189 l/min
FLUID CAPACITIES		
Hydraulic reservoir	27 gal	102 L
Fuel tank	48 gal	182 L
Engine lubrication oil, including filter	13.7 qt	13 L
Engine cooling system	24 qt	22.7 L
Antifreeze tank	8 gal	30 L
Diesel exhaust fluid tank	5 gal	18.9 L
POWER PIPE® HD		
Length of drill pipe, nominal	118 in	3 m
Joint diameter	2.75 in	70 mm
Pipe diameter	2.38 in	60 mm
Bend radius	123 ft	37.5 m
Weight of drill pipe, lined	88 lb	40 kg
Weight of drill pipe and large box, lined (48 pipe)	5,323 lb	2415 kg
Weight of drill pipe and small box, lined (24 pipe)	2,959 lb	1342 kg
POWER PIPE FORGED (FOR DIRT DRILLING)		
Length	120 in	3.05 m
Joint diameter	2.63 in	66.7 mm
Pipe diameter	2.38 in	60 mm
Bend radius, min	108.2 ft	33 m
Weight of drill pipe	73 lb	33 kg
ALL TERRAIN PIPE		
Length of drill pipe, nominal	112 in	2.84 m
Joint diameter	3.25 in	83 mm
Pipe diameter	2.23 in	57 mm
Bend radius, min	145 ft	44 m
Weight of drill pipe, lined	100 lb	45 kg
Weight of drill pipe and large box (35 pipe)	4,599 lb	2086 kg
Weight of drill pipe and small box (20 pipe)	2,847 lb	1291 kg
ALL TERRAIN COBBLE PIPE		
Length of drill pipe, nominal	112 in	2.84 m
Joint diameter	3.25 in	83 mm
Pipe diameter	2.94 in	75 mm
Bend radius, min	210 ft	64 m
Weight of drill pipe, w/inner rod	127 lb	58 kg
Weight of drill pipe and large box (35 pipe)	5,544 lb	2515 kg
Weight of drill pipe and small box (20 pipe)	3,387 lb	1536 kg
BATTERY		
SAE reserve capacity rating	195 min	
SAE cold crank rating @ 0°F (-18°C)	950 amps	
NOISE LEVEL		
Operator sound	86 dBA	
Operator sound w/cab	83 dBA	

Specifications are general and subject to change without notice. If exact measurements are required, equipment should be weighed and measured. Due to selected options, delivered equipment may not necessarily match that shown.



FLUID MIXING SYSTEM





AT40 ALL TERRAIN DIRECTIONAL DRILL



TRENCHLESS

Rotation Speed
Rotation Torque
Pull - Back Force } **Power-at-the-Point**



AT40 ALL TERRAIN DIRECTIONAL DRILL





AT40 ALL TERRAIN DIRECTIONAL DRILL

1

The fully enclosed cab is rated best in the industry based on customer input, and designed specifically with an HDD operator in mind.

2

The operator's platform is equipped with telescoping capability for optimal drilling view.

3

Patented All Terrain connection provides a more reliable connection for optimized performance and steering.

6

Swing-out, lift-off service doors provide easy access for machine maintenance and serviceability.

5

160-gross-hp, Tier 4 Cummins® diesel engine provides 14 percent more horsepower than competitive models in its class.

4

The AT40 All Terrain delivers 40,000 pounds of thrust and pullback—30 percent more thrust in a more compact unit than competitive models.



Optimized for industry-leading performance and productivity in hard rock conditions, the Ditch Witch® AT40 All Terrain directional drill is designed with an advanced version of the proven Ditch Witch All Terrain drilling system. The updated, two-pipe system offers boosted power to the bit—33 percent more torque than competitive units. Patented design enhancements increase cycle times, improve durability and allow for more adaptable steering.

The system also features a new housing enhanced to minimize maintenance, improve reliability and increase its useful life. The drill leverages the same next-generation features of the JT40 model for maximum drilling performance, operator comfort and control.

WE'RE IN THIS TOGETHER.



AT40 ALL TERRAIN DIRECTIONAL DRILL CAB

1

Best-in-class visibility of drilling operations with a clear view to critical vision points, including ground entrance, wrenches, shuttle-retract location, and rear connection.

2

The AT40 All Terrain's Radial Operator Control (ROC) is a multifunctional device that delivers improved operator efficiency.

3

Industry-leading, telescoping cab places the operator at a precise angle, providing an enhanced view of drilling operations.

4

The ergonomic station features a heated seat with adjustable suspension and increased legroom to keep drillers comfortable during long hours on a job.

5

Fully enclosed cab offers premium operator comfort and complete climate control.

6

A real-time position indicator provides operators insight to the carriage location on every drill pipe installation.

7

Equipped with two seven-inch LCD screens for better visibility into all machine functions and diagnostics.

AT40 ALL TERRAIN DIRECTIONAL DRILL SPECIFICATIONS

OPERATION	U.S.	METRIC
Spindle speed, max	225 rpm	
Spindle speed, max (AT inner spindle)	280 rpm	
Spindle torque, max	5,500 ft-lb	7460 N-m
Spindle torque, max (AT inner spindle)	2,000 ft-lb	2710 N-m
Carriage thrust travel speed	180 fpm	55 m/min
Carriage pullback travel speed	180 fpm	55 m/min
Thrust force	40,000 lb	178 kN
Pullback force	40,000 lb	178 kN
Backreamer diameter	Soil dependent	
Ground travel speed		
Forward/reverse	3 mph	4.8 km/h

POWER (TIER 4)

Engine	Cummins® QSB4.5	
Fuel	Diesel	
Cooling medium	Liquid	
Injection	Direct	
Aspiration	Turbocharged & charge air cooled	
Number of cylinders	4	
Displacement	275 in ³	4.5 L
Bore	4.21 in	107 mm
Stroke	4.88 in	124 mm
Manufacturer's gross power rating	160 hp	119 kW
Rated speed	2,300 rpm	
Emissions compliance	EPA Tier 4	EU Stage IV

POWER (TIER 3, LRC)

Engine	Cummins QSB4.5	
Fuel	Diesel	
Cooling medium	Liquid	
Injection	Direct	
Aspiration	Turbocharged & charge air cooled	
Number of cylinders	4	
Displacement	275 in ³	4.5 L
Bore	4.21 in	107 mm
Stroke	4.88 in	124 mm
Manufacturer's gross power rating	148 hp	110 kW
Rated speed	2,300 rpm	
Emissions compliance	EPA Tier 3	EU Stage IIIA

DIMENSIONS

Length, mobilizing	295 in	7.50 m
Length, trailering	290 in	7.37 m
Width, w/open station	89 in	2.26 m
Width, w/cab	93 in	2.36 m
Height, w/cab	114 in	2.90 m
Operating mass, no pipe	21,600 lb	9800 kg
Entry angle	20-29°	
Angle of approach	17°	
Angle of departure	17°	

WEIGHT CONFIGURATION	U.S.	METRIC
Cab option	690 lb	310 kg
Standard anchor option	750 lb	340 kg
HD anchor option	1,290 lb	590 kg
Deduct Tier 3 engine option	165 lb	70 kg

DRILLING FLUID SYSTEM

Pressure, max	1,000 psi	69 bar
Flow, max	70 gpm	265 l/min

FLUID CAPACITIES

Hydraulic reservoir	17 gal	64 L
Fuel tank	56 gal	212 L

POWER PIPE® HD

Length of drill pipe, nominal	180 in	4.57 m
Diameter of drill pipe, tool joint end	3.13 in	80 mm
Diameter of drill pipe	2.81 in	71 mm
Bend radius, min	146 ft	45 m
Weight of drill pipe, lined	150 lb	68 kg
Weight of drill pipe and large box (40 pipe)	7,140 lb	3240 kg
Weight of drill pipe and small box (20 pipe)	3,797 lb	1720 kg

ALL TERRAIN PIPE

Length of drill pipe, nominal	180 in	4.57 m
Diameter of drill pipe, tool joint end	3.75 in	95 mm
Diameter of drill pipe	3.07 in	78 mm
Bend radius, min	170 ft	52 m
Weight of drill pipe	231 lb	105 kg
Weight of drill pipe and large box (24 pipe)	6,350 lb	2880 kg
Weight of drill pipe and small box (12 pipe)	3,450 lb	1560 kg

HIWS1 PIPE

Length of drill pipe, nominal	180 in	4.57 m
Diameter of drill pipe, tool joint end	3.10 in	79 mm
Diameter of drill pipe	2.63 in	67 mm
Bend radius, min	145 ft	44 m
Weight of drill pipe	165 lb	75 kg
Weight of drill pipe and large box (35 pipe)	6,915 lb	3140 kg
Weight of drill pipe and small box (15 pipe)	3,287 lb	1490 kg

BATTERY (2 USED)

SAE reserve capacity rating	195 min	
SAE cold crank rating @ 0°F (-18°C)	950 amps	

Specifications are general and subject to change without notice. If exact measurements are required, equipment should be weighed and measured. Due to selected options, delivered equipment may not necessarily match that shown.

JT40 HORIZONTAL DIRECTIONAL DRILL SPECIFICATIONS

OPERATION	U.S.	METRIC
Spindle speed, max	225 rpm	
Spindle torque, max	5,500 ft-lb	7460 N-m
Carriage thrust travel speed	180 fpm	55 m/min
Carriage pullback travel speed	180 fpm	55 m/min
Thrust force	40,000 lb	178 kN
Pullback force	40,000 lb	178 kN
Backreamer diameter	Soil dependent	
Ground travel speed		
Forward/reverse	3 mph	4.8 km/h

POWER (TIER 4)

Engine	Cummins® QSB4.5	
Fuel	Diesel	
Cooling medium	Liquid	
Injection	Direct	
Aspiration	Turbocharged & charge air cooled	
Number of cylinders	4	
Displacement	275 in ³	4.5 L
Bore	4.21 in	107 mm
Stroke	4.88 in	124 mm
Manufacturer's gross power rating	160 hp	119 kW
Rated speed	2,300 rpm	
Emissions compliance	EPA Tier 4	EU Stage IV

POWER (TIER 3, LRC)

Engine	Cummins QSB4.5	
Fuel	Diesel	
Cooling medium	Liquid	
Injection	Direct	
Aspiration	Turbocharged & charge air cooled	
Number of cylinders	4	
Displacement	275 in ³	4.5 L
Bore	4.21 in	107 mm
Stroke	4.88 in	124 mm
Manufacturer's gross power rating	148 hp	110 kW
Rated speed	2,300 rpm	
Emissions compliance	EPA Tier 3	Stage IIIA

DIMENSIONS

Length	290 in	7.37 m
Width, w/open station	89 in	2.26 m
Width, w/cab	93 in	2.36 in
Height	97 in	2.46 m
Operating mass, no pipe, no cab	20,500 lb	9300 kg
Entry angle	20-29°	
Angle of approach	17°	
Angle of departure	17°	

WEIGHT CONFIGURATION

Cab option	690 lb	310 kg
Standard anchor option	750 lb	340 kg
HD anchor option	1,290 lb	590 kg
Deduct Tier 3 engine option	165 lb	70 kg

DRILLING FLUID SYSTEM	U.S.	METRIC
Pressure, max	1,000 psi	69 bar
Flow, max	70 gpm	265 min

FLUID CAPACITIES

Hydraulic reservoir	17 gal	64 L
Fuel tank	56 gal	212 L
Engine lubrication oil, w/filter	14 qt	13.2 L
Engine cooling system	24 qt	22.7 L
Antifreeze tank	8 gal	30 L
Diesel exhaust fluid tank	3.6 gal	13.6 L

POWER PIPE® HD

Length of drill pipe, nominal	180 in	4.57 m
Diameter of drill pipe, tool joint end	3.13 in	80 mm
Diameter of drill pipe	2.81 in	71 mm
Bend radius, min	146 ft	45 m
Weight of drill pipe, lined	150 lb	68 kg
Weight of drill pipe and large box (40 pipe)	7,140 lb	3240 kg
Weight of drill pipe and small box (20 pipe)	3,797 lb	1720 kg

HIWS1 PIPE

Length of drill pipe, nominal	180 in	4.57 m
Diameter of drill pipe, tool joint end	3.10 in	79 mm
Diameter of drill pipe	2.63 in	67 mm
Bend radius, min	145 ft	44 m
Weight of drill pipe	165 lb	75 kg
Weight of drill pipe and large box (35 pipe)	6,915 lb	3140 kg
Weight of drill pipe and small box (15 pipe)	3,287 lb	1490 kg

BATTERY (2 USED)

SAE reserve capacity rating	195 min	4.57 m
SAE cold crank rating @ 0°F (-18°C)	950 amps	95 mm

NOISE LEVEL

Operator sound pressure per ISO 6396	< or = 85 dBA	
Operator sound pressure per ISO 6396, w/cab	< or = 75 dBA	
Exterior sound power per ISO 6395	< or = 105 dBA	

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me JT100 ALL TERRAIN HORIZONTAL DIRECTIONAL DRILL



TRENCHLESS

Rotation Speed
Rotation Torque
Pull - Back Force } **Power-at-the-Point**

JT100 ALL TERRAIN HORIZONTAL DRILL SPECIFICATIONS

OPERATION	U.S.	METRIC
Spindle speed, max	270 rpm	
Spindle torque, max	2,000 ft-lb	2700 N-m
Carriage thrust travel speed	150 fpm	46 m/min
Carriage pullback travel speed	150 fpm	46 m/min
Thrust force	70,000 lb	311 kN
Pullback force	100,000 lb	445 kN
Backreamer diameter	Soil dependent	
Ground travel speed		
Forward/reverse	3.6 mph	5.8 km/h

POWER		
Engine	Cummins® QSB6.7	
Fuel	Diesel	
Cooling medium	Liquid	
Injection	Direct	
Aspiration	Turbocharged & charge air cooled	
Number of cylinders	6	
Displacement	409 in ³	6.7 L
Bore	4.21 in	107 mm
Stroke	4.88 in	124 mm
Manufacturer's gross power rating	260 hp	201 kW
Rated speed	2,200 rpm	
Emissions compliance	EPA Tier 4	EU Stage IV

DIMENSIONS		
Length	368 in	9.35 m
Width	101 in	2.57 m
Height	110 in	2.79 m
Operating mass, no pipe, no cab	50,740 lb	23015 kg
Entry angle	10-15°	
Angle of departure	17°	

Specifications are general and subject to change without notice. If exact measurements are required, equipment should be weighed and measured. Due to selected options, delivered equipment may not necessarily match that shown.

DRILLING FLUID SYSTEM	U.S.	METRIC
Pressure, max	1,000 psi	69 bar
Flow, max	120 gpm	450 l/min

FLUID CAPACITIES		
Hydraulic reservoir	47 gal	180 L
Fuel tank	97 gal	370 L

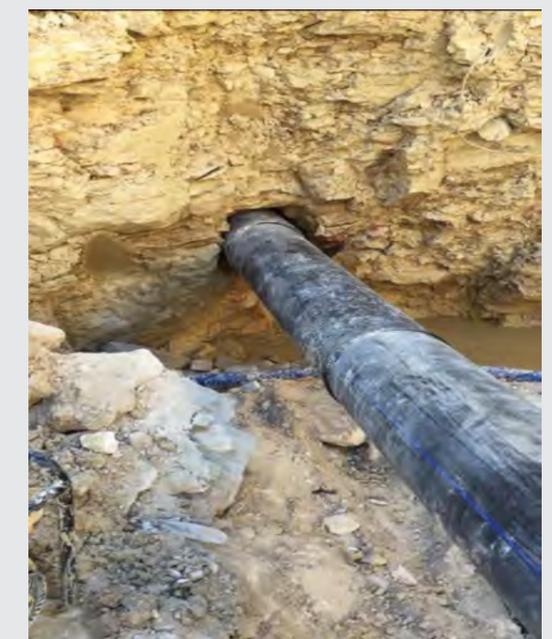
POWER PIPE® HD		
Length of drill pipe	14.75 ft	4.5 m
Tool joint, outside diameter	4 in	101.6 mm
Tool joint, inside diameter	1.5 in	38.1 mm
Bend radius, min	205 ft	62.5 m
Weight of drill pipe	229 lb	104 kg
Weight of drill pipe and short box (12 pipe)	229 lb	104 kg

ALL TERRAIN PIPE		
Length of drill pipe	169.5 in	4.31 m
Tool joint, outside diameter	4.5 in	114 mm
Tool joint, inside diameter	2.13 in	54.1 mm
Bend radius, min	205 ft	62.5 m
Weight of drill pipe	289 lb	131.1 kg
Weight of drill pipe and short box (12 pipe)	3,468 lb	1573.1 kg

HIWS1		
Length of drill pipe	15 ft	4.57 m
Tool joint, outside diameter	3.63 in	92.2 mm
Tool joint, inside diameter	1.5 in	38.1 mm
Bend radius, min	197 ft	60.2 m
Weight of drill pipe	250 lb	113.4 kg
Weight of drill pipe and short box (12 pipe)	3,000 lb	1360.8 kg

BATTERY (2 USED)		
SAE reserve capacity rating	450 min	
SAE cold crank rating @ 0°F (-18°C)	1,400 amps	

PIPES INSTALLED IN ROCK



JT100 ALL TERRAIN HORIZONTAL DIRECTIONAL DRILL



- 1 Large-capacity, 120-gpm (450-l/min) fluid pump plus larger hoses and fittings help move fluid downhole faster, for greater productivity.
- 2 Infinitely variable rotary drive enables the JT100 All Terrain to match spindle speed and torque to power through virtually any soil condition.
- 3 Heavy-duty, double rack-and-pinion thrust drive is field-proven to push/pull through long, tough bores.
- 4 Fully enclosed cab offers instrument panel gauges positioned for visibility, conveniently placed controls and an excellent view of the tool joint.
- 5 Optional onboard loader and exclusive heavy-duty anchor system eliminate the need for large and expensive support equipment, reducing transportation costs, setup time and jobsite size.
- 6 Industry-exclusive, patented All-Terrain two-pipe drilling system provides more power to the bit than any other rock-drilling system in its class.
- 7 100,000 lb (445 kN) of pullback and 2,000 ft-lb (2700 N·m) of torque make the JT100 All Terrain ideal for installations of large-diameter pipe.
- 8 Exclusive dual-pivot drill frame allows steeper entry angles without raising tracks off the ground.
- 9 260-hp (201-kW) engine efficiently delivers tremendous power to all drilling functions so you can get the job done faster.



When you're challenged with a lengthy installation through every type of soil including solid rock, you need the superior power and technology offered by the Ditch Witch® JT100 All Terrain Horizontal Directional Drill. With the JT100 All Terrain you get 100,000 lb (445 kN) of pullback and up to 2,000 ft-lb (2700 N·m) of torque, powered by a huge, 268-hp (200-kW) engine. Everything is engineered to maximize the productivity of the machine's patented All Terrain technology, a two-pipe drilling system that enables you to drill and steer simultaneously.

WE'RE IN THIS TOGETHER.





HDD TRACKING & GUIDANCE SYSTEM

On the jobsite, interference is everywhere, created by many sources: metal fences, radio signals, underground and overhead utilities, nearby buildings and more. With the **Subsite® TK Series Hdd Guidance System**, you can cut through the noise and complete bores with an unprecedented level of confidence, thanks to its dual locating methods (walkover and DrillTo™), four-frequency beacon, a depth range of up to 110 feet (33.5 m), high-contrast graphics and much more.



KEY FEATURES

- Two locating methods let you use your preferred method of locating, while using the second method to verify your results.
 - 1) Walkover enables the operator to pinpoint drill head location with peak and null techniques.
 - 2) Time-saving DrillTo™ mode enables the drill operator to make real-time corrections to improve bore accuracy or avoid obstacles.
- Bore-path analyzer software shows which frequency works best for your particular job and conditions.
- Simple, four-button layout is easy to learn and simple to use. High-contrast screen for easy readability in any light.
- Up to four frequencies in a single beacon to help you avoid signal interference.
- Ergonomic upright design reduces fatigue.
- Walkover tracking up to 110 feet with standard-size beacons (15" and 17") is deeper than anything else available. The long 2,000-foot range between the
- TSR Mobile software provides As Built



TK SERIES HDD GUIDANCE SYSTEM

TK Series trackers provide a deeper locate range – greater than any competing tracker today (up to 110 ft).

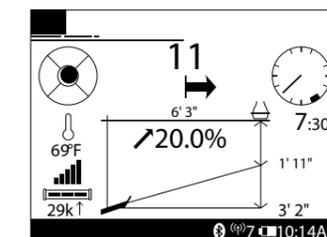
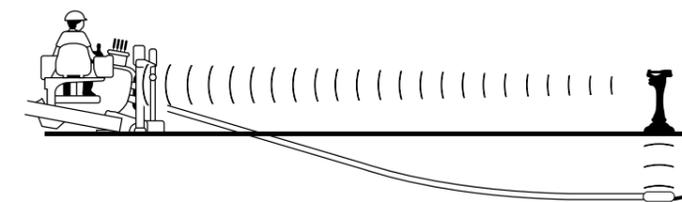


TK SERIES HDD GUIDANCE SYSTEM

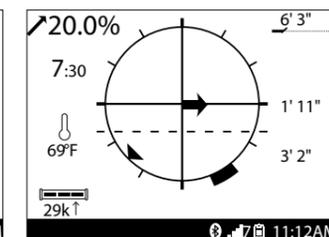
TRACKER	
Dimensions	13 x 7 x 30 in. (330 x 178 x 762 mm)
Weight (with battery)	9 lbs (4.1 kg)
Operating temperature	-4 to 140°F
Environmental rating	IP65
Power source	C-Cell alkaline or NiMH rechargeable
Battery life	10-12 hours
Display	Hi-resolution graphic
Audio output	Speaker
Telemetry Range	2000 ft (610 m)
Telemetry channels	4-14
Accuracy	+/- 5% over testable range
Depth range	≥ 110 ft (depends on beacon power)
TK TRACKER	
Receiving frequencies	29 kHz
Depth with B pwr beacon	≥ 40 ft (12.2 m)
Depth with H pwr beacon	≥ 70 ft (21.3 m)
Depth with X pwr beacon	≥ 75 ft (22.8 m)
TK D TRACKER	
Receiving frequencies	12 or 29 kHz
Depth with B pwr beacon	≥ 60 ft (18.3 m)
Depth with H pwr beacon	≥ 110 ft (33.5 m)
Depth with X pwr beacon	≥ 115 ft (35 m)
TK Q TRACKER	
Receiving frequencies	1.5, 12, 20 or 29 kHz
Depth with B pwr beacon	w/ 12, 20, 29 kHz; ≥ 70 ft (21.3 m)
Depth with H pwr beacon	w/ 1.5 kHz; ≥ 70 ft (21.3 m)
Depth with H pwr beacon	w/ 12, 20, 29 kHz; ≥ 110 ft (33.5 m)
Depth with X pwr beacon	w/ 12, 20, 29 kHz; ≥ 115 ft (35 m)

SPECIFICATIONS

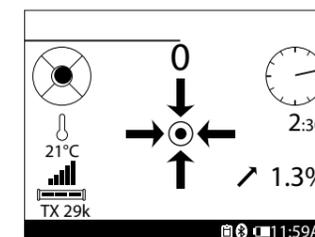
DISPLAY	
Operating temperature	-4 to 140°F
Environmental rating	IP65
Power source	Powered off the HDD unit power
Display	Hi-resolution graphic
Telemetry Range	2000 ft (610 m)
Telemetry channels	4-14
TDR REMOTE DISPLAY	
Dimensions	6 x 6 x 6 in. (152.4 x 152.4 x 152.4 mm)
TD IN-DASH DISPLAY	
Dimensions	7 x 7 x 6.5 in. (177.8 x 177.8 x 165.1 mm)



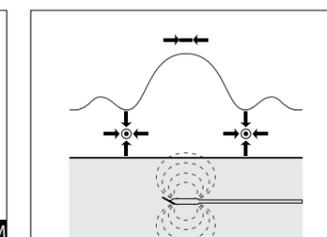
DrillTo™ Tracker Screen



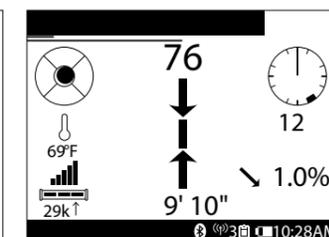
DrillTo™ Remote Display Screen



Walkover Null Locate



Null and Peak Regions



Walkover Peak Locate



HDD Beacons





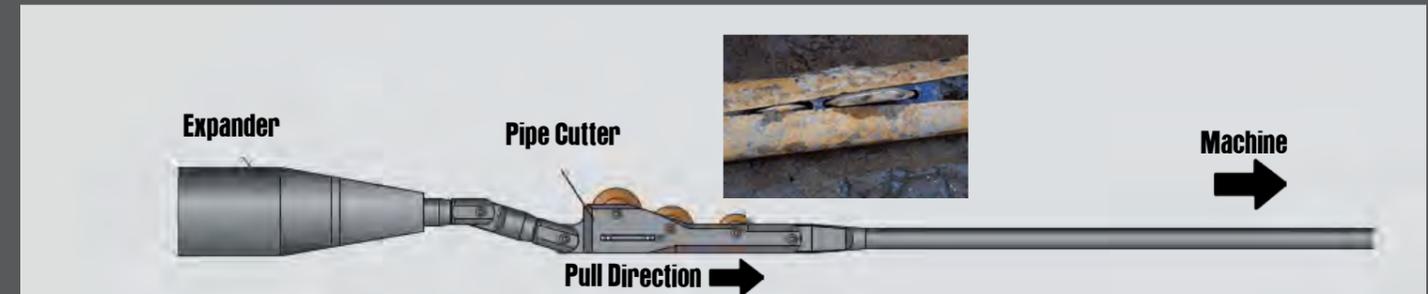
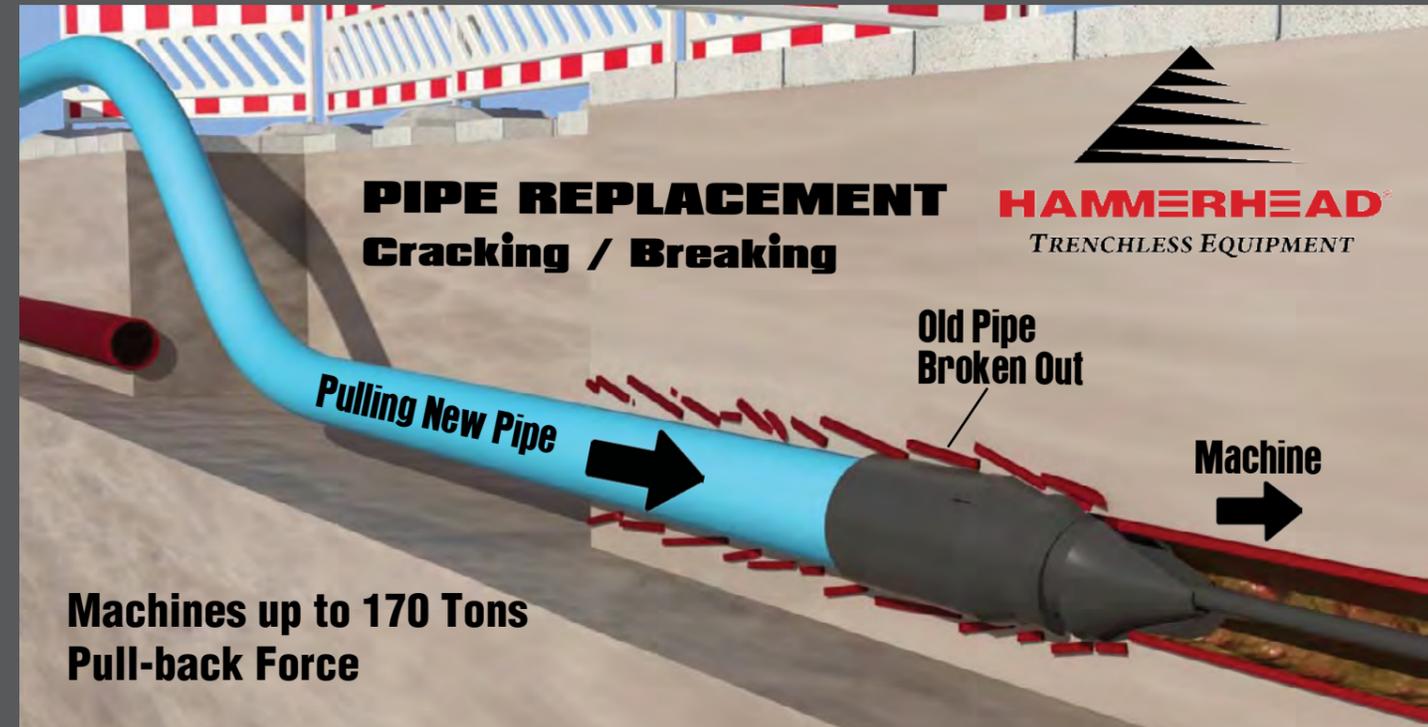
GROUND PENETRATING RADAR / SCANNER

The Subsite **Ground Penetrating Radar / Scanner** will help you locate any type of utility conduit or piping—metallic or non-metallic, including PVC—beneath soil, rock, pavement, and other surfaces. Plus, a user-friendly Window's-based interface provides productivity-enhancing benefits from easy integration of GPS data to reliable wireless connectivity for downloading web-based maps such as Google Earth.



KEY FEATURES

- :: Locates both metallic and non-metallic pipes and cables to allow one-pass locates at depths of up to 19.7 feet (6 m), depending on soil conditions and antenna selection.
- :: Earth-engaged antenna provides better contact on uneven terrain and reduces signal loss.
- :: Easy GPS connectivity allows you to see your path and marks in real-time as you scan.
- :: With 5.6 mph (9 km/h) survey speed and digitally controlled radar, the 2550GR provides fast, clear images.
- :: Wireless connection allows you to download maps such as Google Earth.
- :: The 2550GR folds up into a size that is easy to transport.
- :: Assisted grid capability allows you to grid your location digitally, without having to paint the ground.
- :: Rugged, four-wheel cart design allows the operator to scan on any type of terrain.
- :: Synchronized dual-frequency antenna allows you to see both deep and shallow objects simultaneously.
- :: One-touch recalibration button lets you transition from one scanning surface to another quickly and easily.





Grade Slope Installations



Multiple Pipes / Conduits



Pipes installed underground with no disturbance to road surface



Back-ream & Pull Pipe

PARTS



ORIGINAL



**BUILT BETTER TO
LAST LONGER.**



Equipment Parts Training Support



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