

# JT40 HORIZONTAL DIRECTIONAL DRILL

 **Ditch Witch**®



**TRENCHLESS**

# JT40 HORIZONTAL DIRECTIONAL DRILL



1 The patent-pending open-sided vise wrenches on the JT40 are rotated toward the operator, enhancing visibility.

2 The JT40 holds up to 600 feet of drill pipe on board, reducing cycle times and increasing ROI.

3 The machine includes a patent pending, reversible pipe box for added jobsite versatility.



6 The new patent-pending slide cartridge allows operators to effectively complete a job, without stopping for increased uptime.

5 The JT40 features a unique add-a-pipe design to improve productivity.

4 Equipped with a 70-gpm, 1,100-psi mud pump, the JT40 has increased fluid course from the mud pump to the swivel, for more downhole flow capabilities.

Built from direct operator feedback and input, the JT40 is a modern evolution of the industry-leading horizontal directional drill (HDD) units from the Ditch Witch® organization. Designed with next-generation enhancements, the machine features several pending patents to optimize drilling productivity and operator comfort. The JT40 offers boosted power—20 more horsepower than some competitive models in its class—to maximize drilling performance.

The compact, yet powerful machine reduces jobsite footprint and has increased pipe-rack capacity compared to previous models, for enhanced productivity. Additionally, the new machine boasts a premier operator interface and station for a more transparent view into all machine operations, improved operator comfort and enhanced operational control.

**WE'RE IN THIS TOGETHER.**

# JT40 HORIZONTAL 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 JT40'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

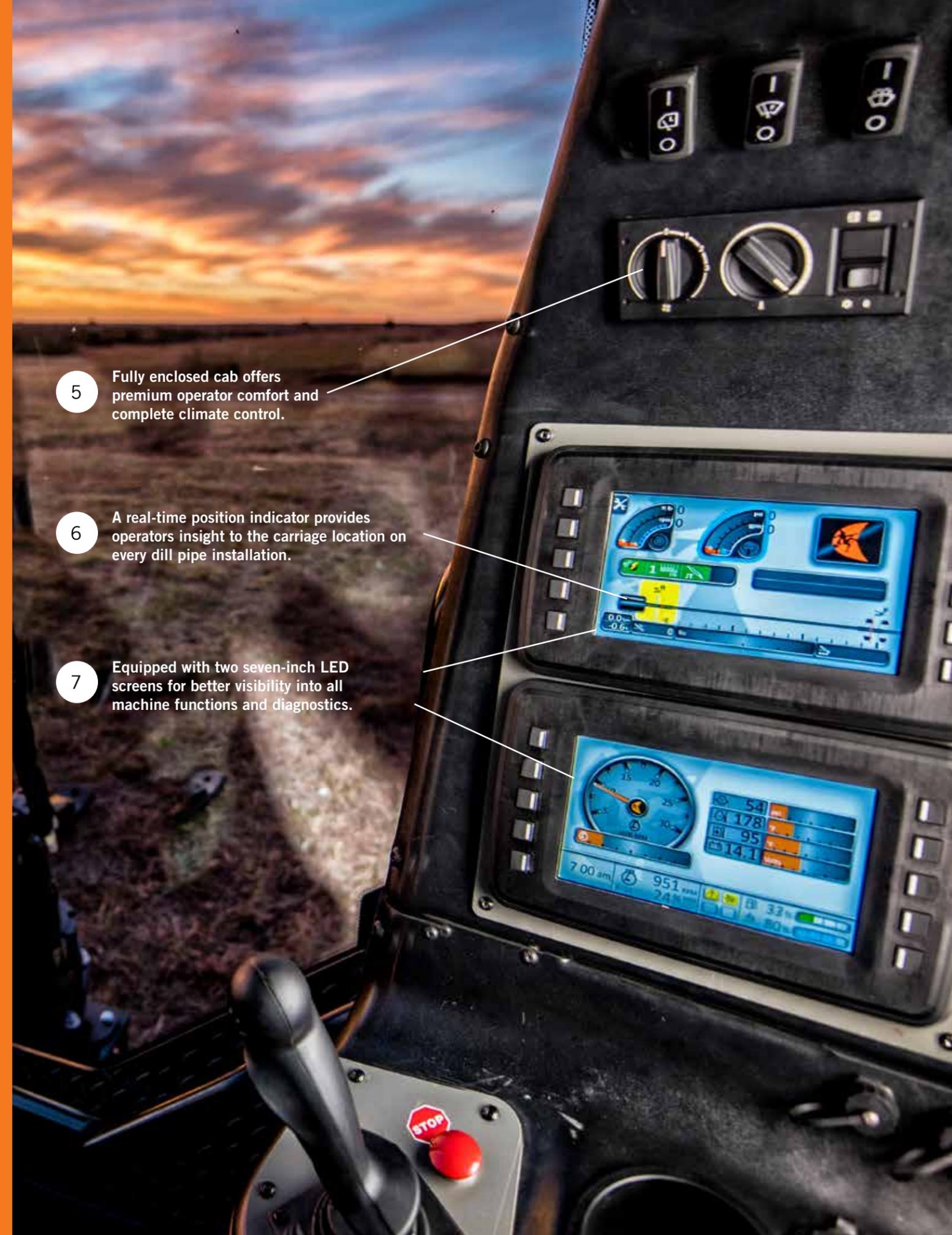
Fully enclosed cab offers premium operator comfort and complete climate control.

6

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

7

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



# JT40 HORIZONTAL DIRECTIONAL DRILL



1

With 40,000 pounds of thrust and pullback, the JT40 provides 30 percent more thrust than competitive models in its class.

2

Equipped with a 160-gross-hp, Tier 4 Cummins® diesel engine, the JT40 provides 20 more horsepower over competitive models in its class.

3

The JT40 features the choice of a climate-controlled cab with tinted glass or an open operator's station to meet each customer's individual needs.

6

The JT40 is equipped with swing-out, lift-off doors for easy access for machine maintenance and serviceability.

5

State-of-the-art hydraulic components enhance drill performance and maximize drilling efficiency.

4

The JT40 is equipped with a modular stake down system in two available options, standard and heavy duty, and is integrated into a wireless remote controller, allowing operators to control anchors wirelessly.

# 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 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	
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 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	
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 m
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	

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.



## THE DITCH WITCH® HDD SYSTEM INCLUDES:



### HDD TOOLING

For your directional drill, we offer a complete line of genuine Ditch Witch HDD tooling, including drill bits, backreamers, drill pipe and beacon housings.



### MUD MIXERS

Ditch Witch fluid-management systems include the innovative FM13V, a fluid-mixing system that features a pump that lubricates itself during mixing and works so efficiently that it delivers 20 percent more fluid than other models.



### VACUUM EXCAVATORS

Ditch Witch vacuum excavators are designed for a tremendous range of soft-excitation and cleanup tasks, including all manner of non-hazardous spills in and around the directional drilling jobsite. They're the most powerful and most efficient vac systems on the market.

