



JT40

DIRECTIONAL DRILL



Ditch Witch®

JT40

Built from direct customer feedback, the JT40 is a true operator's drill, with the power and productivity owners demand, and the comfort features and intuitive controls to help operators work efficiently.

Features a reversible pipe box for added jobsite versatility.

2

Equipped with a 70-gpm, 1,000-psi (or optional 110-gpm, 800-psi) mud pump, the JT40 has increased fluid course from the mud pump to the swivel, for more downhole flow capabilities.

3

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

1

Unique add-a-pipe design to increase productivity.

4

Holds up to 600 feet of drill pipe on board, reducing cycle times and increasing ROI.

5



JT40

Delivers 40,000 pounds of thrust and pullback—30 percent more thrust than competitive models in its class.

1

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

2

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

3

7

The patented slide cartridge provides a backup for the carriage rollers if they reach the end of their useful life during a bore, allowing operators to complete a job without stopping to replace failed rollers, for increased uptime.

6

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

5

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

4

Equipped with a modular stake down system, available in standard and heavy duty, and is integrated into a wireless remote controller.

JT40 DRILL CAB

1 Best-in-class visibility of 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 insight to the carriage location on every drill pipe installation.

7 Two seven-inch LCD screens for better visibility into all machine functions and diagnostics.

JT40 DIRECTIONAL DRILL

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 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	U.S.	METRIC
Cab option	690 lb	310 kg
Standard anchor option	750 lb	340 kg
HD anchor option	1,290 lb	590 kg
110 gpm fluid pump option	320 lb	145 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 l/min

DRILLING FLUID SYSTEM (110 GPM OPTION)

Pressure, max	800 psi	55 bar
Flow, max	110 gpm	416 l/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

POWER PIPE FORGED HD

Length	180 in	4.57 m
Diameter of tool joint	3.13 in	80 mm
Diameter of drill pipe	2.75 in	70 mm
Bend radius, min	143 ft	43.6 m
Weight of drill pipe	144 lb	65 kg
Weight of drill pipe and large box (40 pipe)	6,940 lb	3148 kg
Weight of drill pipe and small box (20 pipe)	3,697 lb	1677 kg

POWER PIPE FORGED HDX

Length	180 in	4.57 m
Diameter of tool joint	3.13 in	80 mm
Diameter of drill pipe	2.75 in	70 mm
Bend radius, min	143 ft	43.6 m
Weight of drill pipe	144 lb	65 kg
Weight of drill pipe and large box (40 pipe)	6,940 lb	3148 kg
Weight of drill pipe and small box (20 pipe)	3,697 lb	1677 kg

BATTERY (2 USED)

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

NOISE LEVEL

Operator sound pressure per ISO 6396	< or = 85 dBA
Operator sound pressure per ISO 6396, w/cab	< or = 73 dBA
Exterior sound power per ISO 6395	< or = 103 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.

