JT40
HORIZONTAL DIRECTIONAL DRILL

TRENCHLESS
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.

1. The patent-pending open-sided vise wrenches on the JT40 are rotated toward the operator, enhancing visibility.
2. The machine includes a reversible pipe box for added jobsite versatility.
3. 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.
4. The JT40 features a unique add-a-pipe design to improve productivity.
5. The JT40 holds up to 600 feet of drill pipe on board, reducing cycle times and increasing ROI.
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 drill pipe installation.

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

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.
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.

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


6. 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.

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

JT40 HORIZONTAL DIRECTIONAL DRILL SPECIFICATIONS

**OPERATION**

<table>
<thead>
<tr>
<th>U.S.</th>
<th>METRIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spindle speed, max</td>
<td>225 rpm</td>
</tr>
<tr>
<td>Spindle torque, max</td>
<td>5,500 ft lbs (7460 Nm)</td>
</tr>
<tr>
<td>Carriage thrust travel speed</td>
<td>180 fpm (55 m/min)</td>
</tr>
<tr>
<td>Carriage pullback travel speed</td>
<td>180 fpm (55 m/min)</td>
</tr>
<tr>
<td>Thrust force</td>
<td>40,000 lbs (178 kN)</td>
</tr>
<tr>
<td>Pullback force</td>
<td>40,000 lbs (178 kN)</td>
</tr>
<tr>
<td>Backhoe diameter</td>
<td>Soil dependent</td>
</tr>
<tr>
<td>Ground travel speed</td>
<td>Forward/reverse 3 mph (4.8 km/h)</td>
</tr>
</tbody>
</table>

**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**: 99 in (2.51 m)
- **Width, w/cab**: 93 in (2.36 m)
- **Height**: 97 in (2.46 m)
- **Operating mass, no pipe, no cab**: 25,000 lbs (11,300 kg)
- **Entry angle**: 20-29°
- **Angle of approach**: 20°
- **Angle of departure**: 20°

**WEIGHT CONFIGURATION**

- **Cab option**: 600 lbs (330 kg)
- **Standard anchor option**: 750 lbs (340 kg)
- **HD anchor option**: 1,120 lbs (500 kg)
- **110 GPM fluid pump option**: 320 lbs (145 kg)
- **Deduct Tier 3 engine option**: 165 lbs (70 kg)

**DRILLING FLUID SYSTEM**

<table>
<thead>
<tr>
<th>U.S.</th>
<th>METRIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure, max</td>
<td>1,000 psi (69 bar)</td>
</tr>
<tr>
<td>Flow, max</td>
<td>70 gpm (265 l/min)</td>
</tr>
</tbody>
</table>

**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
- **SAE cold crank rating @ 0°F (-18°C)**: 950 amps

**NOISE LEVEL**

- **Operator sound pressure per ISO 6396**: < 85 dBA
- **Operator sound pressure per ISO 6396, w/cab**: < 73 dBA
- **Exterior sound power per ISO 6395**: < 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.
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 FM13X, 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.