DITCH WITCH®

JT2720 Mach 1

HORIZONTAL DIRECTIONAL DRILLING SYSTEM

THE NEXT GENERATION IN HORIZONTAL DIRECTIONAL DRILLING INNOVATION.

- Mach 1 technology offers electronic innovations that can help achieve improved levels of reliability and performance.
- Exclusive cruise control feature helps increase overall productivity by giving the operator a hands-free way to maintain thrust and rotation settings.
- 125 horsepower (93 kW) turbocharged diesel engine provides exceptional power.

Ditch Witch®
THE UNDERGROUND AUTHORITY™
WORLDWIDE

JT2720 Mach 1

Horizontal Directional Drilling System

The next generation in horizontal directional drilling innovation.

With its enhanced power, advanced electronic technology, increased drilling fluid flow capacity, and high-performance cooling system, the all-new JT2720 Mach 1 is built with the innovative features that help you do one thing: put more product in the ground.

The heart of this impressive system is its advanced Mach 1 technology, which includes an onboard processor that controls the ground drive and pipeloader, as well as all drilling functions. This processor also works to increase productivity with a diagnostics feature that automatically monitors and troubleshoots the system.

The JT2720 Mach 1 features an automated pipeloader that provides consistent reliability, and a heavy-duty vise breakout system that gives the operator a clear view of

the drill pipe during makeup and breakout.

The unit's exclusive cruise control is a huge plus for operators, too. Just set the control for ground conditions, and it maintains desired thrust, pullback and rotation speeds. Adjustments can be made with the push of a button. This cruise control feature helps increase overall productivity by giving the operator greater freedom to focus on the whole job; operators also tell us it helps make long work days seem just a little shorter.

The JT2720 Mach 1 is built with your needs in mind. It's an HDD system engineered for less maintenance and more reliability. It's designed to help the operator be productive. And, of course, it's built to help you get more pipe and cable in the ground on a continuous basis.

But the proof is in the details, so please read on. Then visit your Ditch Witch dealer, and see firsthand why the JT2720 Mach 1 should be part of your future.

Ditch Witch®
THE UNDERGROUND AUTHORITY
WORLDWIDE.™

JT2720 Mach 1
Horizontal Directional Drilling System

1. Industry standard pipeloader.

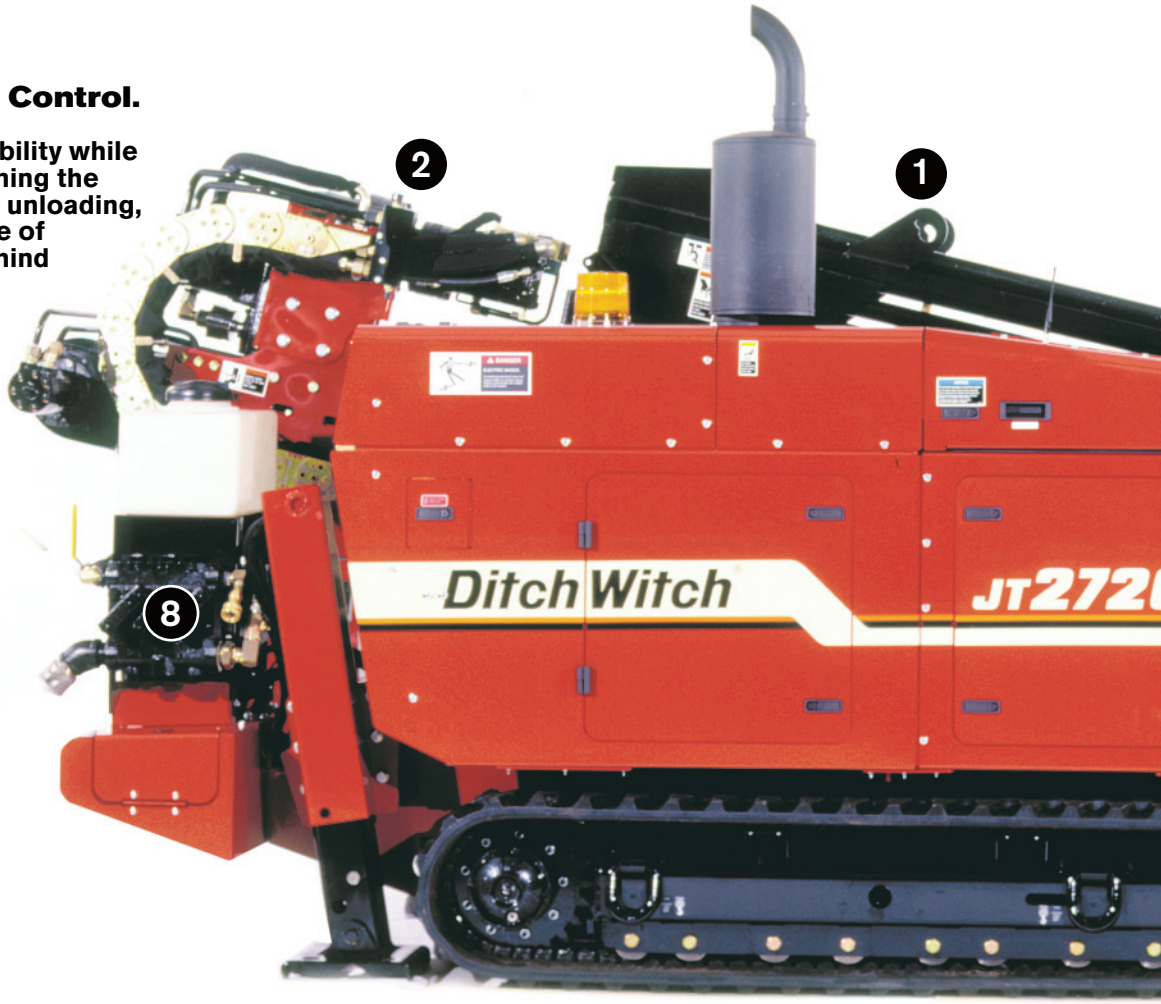
Hydraulic pipe grippers, single pipe loading, hydraulic shuttle stops, and automated thread lubrication set the industry standard for speed, reliability and efficiency.

2. Two-speed carriage.

Allows faster travel during makeup and breakout. Also provides exceptional low speed drilling control, as well as the higher speeds necessary for rapidly adding or removing drill pipe.

9. Tethered Ground Drive Control.

Gives the operator increased visibility while driving to the jobsite and positioning the unit for drilling. When loading or unloading, the operator can stand to the side of the trailer rather than directly behind the unit.

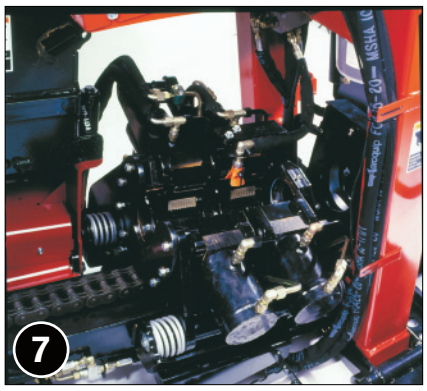


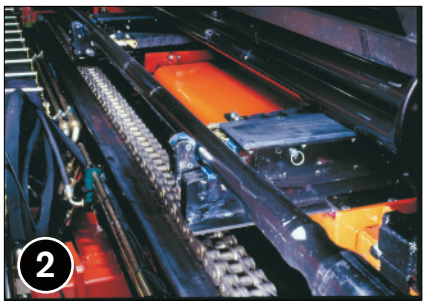
8. Onboard fluid pump.

Provides variable fluid flow for changing drilling conditions. This pump is positioned for fast service access.

7. Heavy-duty vise breakout system.

Radius cut wrench jaws provide a full, secure grip on pipe, which increases wearlife on the jaw inserts and tool joints. The breakout system gives the operator a clear view of the drill pipe during makeup and breakout.



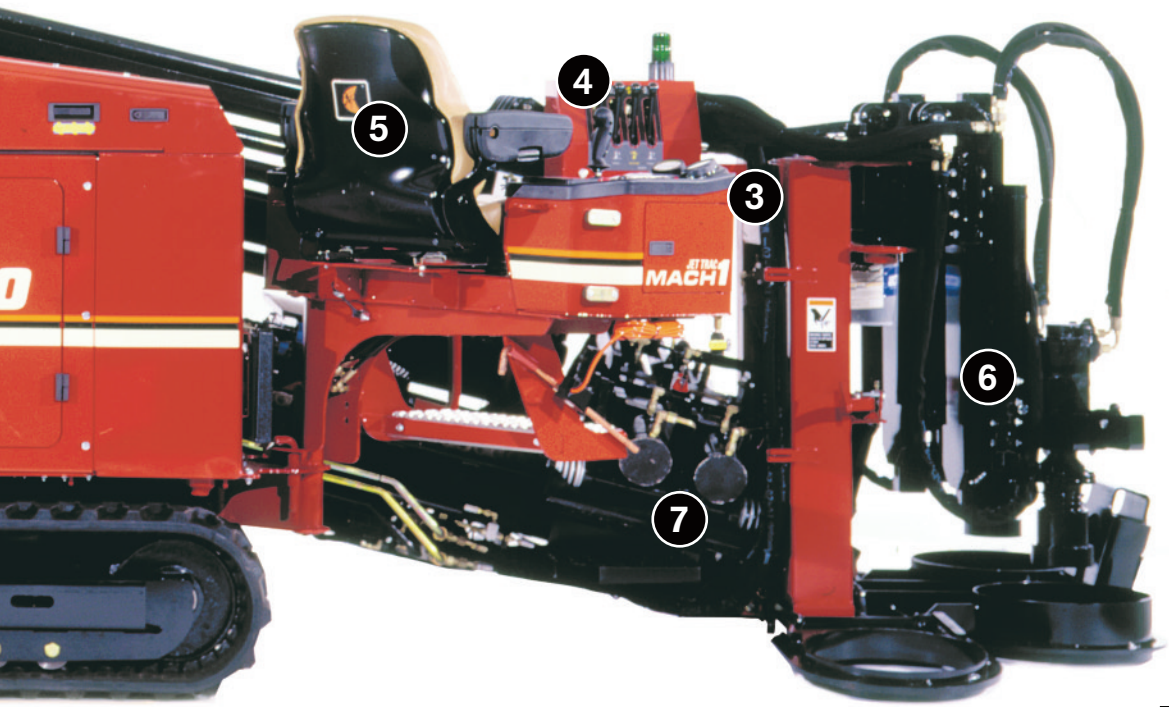


3. Tracker control.

Gives the tracker operator the ability to disable power to the drilling unit's thrust and rotation when desired, such as before changing downhole tools.

4. Single lever control.

Electric-over-hydraulic control allows for precise drilling/backreaming adjustments. Exclusive cruise control feature gives the operator a hands-free way to maintain desired thrust and rotation settings; this is a highly productive innovation that helps operator comfort and concentration over a long day of drilling.



5. High performance operator station.

Designed to increase overall productivity during the toughest jobs. Includes many new features for added comfort, including an adjustable seat back and variable-position arm rests.

6. Hydraulic, four-point anchor system.

Enables the unit to be firmly secured in all types of ground conditions. Also adds flexibility when anchoring in congested easements.

A Systems Approach to Dependable Power and Performance.

Training and Support

- Your local Ditch Witch dealer has the knowledge and experience to prepare you and your crew for equipment operation.

Ditch Witch Subsite Tracking Systems

- No other tracking system on the market today is more advanced than the Ditch Witch Subsite 750 Tracker and 750 Display. The display is located right in the console where it's needed.
- Innovative Trac Management System lets you plan or plot every bore you make.

Fluid Mixing System

- FM13 Fluid Mixing system features self-feeding venturi hoppers.
- Totally compatible with the drilling unit's on board fluid pump for maximum pressure and flow.

Downhole Tool Parts Catalog

- A broad selection of downhole tools for efficient productivity in virtually every soil condition.
- Downhole tools can be custom-built to accommodate special needs and applications.

Drill Pipe

- Ditch Witch drill pipe balances strength and flexibility to gain maximum performance from the drilling unit.
- Features a composite design that utilizes the best type of metal for each component of the pipe.

Vacuum Excavation System

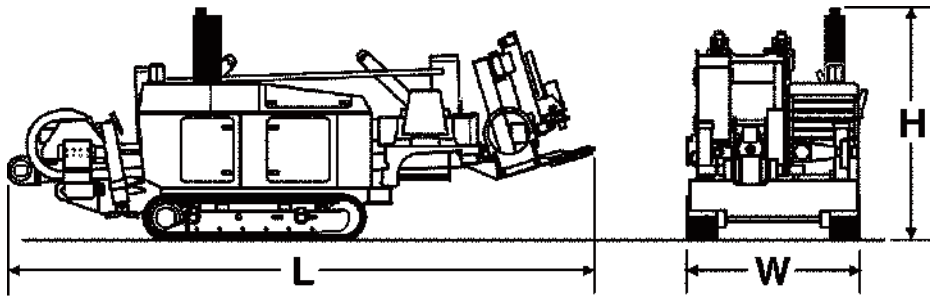
- FX30 vac system features a 28 gross hp (20.9 kW) Kubota diesel engine.
- Enclosed and insulated power pack makes it the quietest running vac system in the industry.
- Designed to achieve up to 40% greater filtration over competitive systems.
- Controls are conveniently located in a lockable and lighted curbside operator's station.

Dealer Service

- The Ditch Witch advantage means rapid parts availability and convenient, high-quality repair service.
- Reliable dealer service and support is available worldwide, wherever your job takes you next.

S P E C S

JT2720 Mach1



DIMENSIONS:	U.S.	METRIC
Length	248 in	6.3 m
Width	81 in	2 m
Height (over sheet metal)	62 in	1.6 m
Height (over exhaust stack)	92 in	2.3 m
Weight (w/ full pipe box)	20,320 lb	9217 kg
Set up angle		
Minimum	10˚	10˚
Maximum	23˚	23˚
Angle of approach	22˚	22˚
Angle of departure	26˚	26˚

POWER PIPE		
Length	118 in	3 m
Joint diameter	3.00 in	76 mm
Tubing diameter	2.4 in	60 mm
Min. bend radius	175 ft	54 m
Weight (lined)	90 lb	41 kg
Weight (large JT pipe box w/ 50 pipe)	5000 lb	2268 kg
Weight (small JT pipe box w/ 25 pipe)	2500 lb	1134 kg

OPERATIONAL:		
Spindle speed (unloaded, warm oil)	225 rpm	225 rpm
Spindle torque (max)	3200 ft•lb	4338 N•m
Carriage speed	120 fpm	36 mpm
Pullback actual	27,000 lb	120 kN
Thrust actual	24,800 lb	110 kN
Minimum bore diameter (w/ soil bit)	4.50 in	114 mm
Backreamed diameter (soil dependent)	variable	variable
Ground drive speed (forward)	0-1.7 mph	0-2.7 kph
Ground drive speed (reverse)	0-1.7 mph	0-2.7 kph

POWER:	
Engine:	John Deere Model #4045TF250 (Turbocharged)
Fuel:	diesel
Cooling medium:	John Deere Cool-Gard 50/50 pre-mixed coolant
Number of cylinders:	4
Displacement	276 in³ / 4.5 L
Bore	4.19 in / 106 mm
Stroke	5.00 in / 127 mm
Engine Angle	
Fore and aft (continuous)	20˚ / 20˚
Side to side (contunuous)	20˚ / 20˚
Gross power @ 2400 rpm	125 hp / 93 kW
Maximum governed speed (no load)	2400 rpm / 2400 rpm
Operating power @ 2400 rpm	113 hp / 84 kW

HYDRAULIC SYSTEM:	U.S.	METRIC
Auxillary pump	3000 psi	207 bar
Rotation pump	4500 psi	310 bar
Thrust/fluid/ground dirve pump	3000 psi	207 bar

FLUID SYSTEM (ONBOARD):		
Fluid pressure	1500 psi	103 bar
Flow rate (variable)	0-47 gpm	0-3 L/sec
Fluid tank (antifreeze/freshwater)	8 gal	30 L

FLUID CAPACITIES:		
Fuel tank	40 gal	151 L
Hydraulic reservoir	30 gal	113 L
Engine oil, including filter	14 qt	13.3 L
Engine cooling system	20 qt	20 L

BATTERY:
SAE reserve capacity 120 min, SAE cold crank @ 0˚ F (-18˚ C) 800 amps.

NOISE LEVELS:
Operator <92 dbA sound pressure per ISO 6394
Exterior <111 dbA sound power per ISO 6393

Specifications are called out according to SAE recommended practices. 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.

CALL BEFORE YOU DIG!
1-888-258-0808

Quality System Certified

ISO-9001 Quality System Certified

AUTHORIZED DEALER:

Ditch Witch®
THE UNDERGROUND AUTHORITY WORLDWIDE™

The Charles Machine Works, Inc.
Ditch Witch® Worldwide Headquarters
Perry, OK 73077-0066 U.S.A. • (800) 654-6481 • (580) 336-4402
Fax: (580) 336-3458 • International Fax: (580) 336-3526
Internet: www.ditchwitch.com
E-mail: info@ditchwitch.com

F701-5923/1