

 **Ditch Witch**

JT1220 MACH 1 HORIZONTAL DIRECTIONAL DRILL

TRENCHLESS



JT1220 MACH 1 HORIZONTAL DIRECTIONAL DRILL

1

Efficient pipeloading system allows column selection from the operator's station; available pipeloader automation further simplifies operation.

2

Two-speed carriage significantly decreases cycle time; assisted-makeup feature increases the life of drill pipe joints by automatically matching carriage movement speed with rotation during pipe makeup and breakout.

3

Open-top vise wrenches provide excellent visibility of drill pipe tool joints during pipe makeup and breakout.

10

Engine enclosure directs hot engine air away from the operator, simplifies maintenance and minimizes noise.

9

Enclosed fluid pump system keeps pump warm during winter operation.

8

Dual stabilizer system provides quick setup.

7

Rack-and-pinion thrust system provides outstanding power transfer and performance for a wide range of drilling jobs.

6

Cruise control for drilling and backreaming reduces operator effort.





4

Integrated electronic system with guidance control enables tracker operator to disable power to drilling unit's thrust and rotation.

5

Large-capacity pipe lubrication system keeps contamination out, minimizing maintenance.



The Ditch Witch® JT1220 Mach 1 Horizontal Directional Drill has 12,000 lb (53.4 kN) of pullback force, enabling you to consistently drill and backream with extraordinary precision. Ditch Witch Mach 1 technology, as the term implies, makes utility installation fast by controlling the ground drive, pipeloader and all drilling functions—plus system monitoring and troubleshooting—so you can get to the next jobsite in no time.

WE'RE IN THIS TOGETHER.



JT1220 MACH 1 HORIZONTAL DIRECTIONAL DRILL SPECIFICATIONS

	U.S.	METRIC
OPERATION		
Spindle speed, max	180 rpm	
Spindle torque, max	1400 ft·lb	1898 N·m
Carriage thrust travel speed	155 fpm	47 m/min
Carriage pullback travel speed	155 fpm	47 m/min
Thrust force	10,000 lb	44.5 kN
Pullback force	12,000 lb	53.4 kN
Bore diameter	3.5 in	89 mm
Backream diameter	Soil dependent	
Ground travel speed, max		
Forward/reverse	2.7 mph	4.3 km/h
POWER		
Engine	Cummins® B3.3	
Fuel	Diesel	
Cooling medium	Liquid	
Injection	Direct	
Aspiration	Natural	
Number of cylinders	4	
Displacement	199 in ³	3.3 L
Bore	3.74 in	95 mm
Stroke	4.53 in	115 mm
Manufacturer's gross power rating	60 hp	45 kW
Rated speed	2,200 rpm	
Emissions compliance	EPA Tier 4	EU Stage IIIA

	U.S.	METRIC
DIMENSIONS (*FULL RACK)		
Length	188 in	4.78 m
Width	51.5 in	1.31 m
Height	78 in	1.98 m
Weight*	10,100 lb	4580 kg
Entry angle	10-14°	
Angle of approach	18°	
Angle of departure	18°	
DRILLING FLUID SYSTEM (ON BOARD)		
Pressure, max*	1,250 psi	86 bar
Flow, max*	15 gpm	57 l/min
FLUID CAPACITIES		
Hydraulic reservoir	19 gal	72 L
Fuel tank	19 gal	72 L
POWER PIPE®		
Length, nominal	120 in	3 m
Diameter	1.82 in	46.2 mm
Diameter, tool joint end	2.38 in	60.4 mm
Bend radius, min	120 ft	37 m
Weight, lined	54 lb	24.5 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.

THE DITCH WITCH® HDD SYSTEM INCLUDES:



ELECTRONICS

The Ditch Witch organization designs and manufactures its own tracking electronics, including the unbeatably accurate TK Series HDD Guidance System, which enables you to cut through noise and complete bores with an unprecedented level of confidence.



HDD TOOLING

For your directional drill, we offer a complete line of genuine Ditch Witch drill bits, backreamers, drill pipe, and beacon housings, including TriHawk®, the most reliable and durable in the horizontal directional drilling industry.