



# JT21

HORIZONTAL DIRECTIONAL DRILL



Ditch Witch®



# JT21

With a 215-fpm carriage speed—35% faster than any drill in its class—and up to 40% more downhole horsepower than its predecessor, the JT21 has the speed and the power you need to get the job done, keeping you ahead of schedule and ready for whatever comes next.

Virtually Assisted Makeup and Breakout (VAM) removes the need for floats and sensors, increasing thread life by ensuring greater tooling longevity.

With 21,000 lbs of pullback, 20,000 lbs of thrust and 2,250 ft·lbs of rotational torque, the JT21 is the most powerful drill in its class.

A new design and lower center of gravity and increases stability.

Improved hydraulic efficiencies and a direct-drive motor deliver more downhole horsepower.

The 74-HP Deutz® engine ensures consistent performance even in difficult ground.

A larger displacement pump, generating 35 gpm and running at a lower RPM, increases the life of the pump and wearables.

An advanced telematics system provides data on machine performance so you have the insights you need to make quick decisions, resulting in better jobsite management and ROI.

Multimode joystick controls let you choose a preferred operating style, and integrated LCD screens allow for better visibility into functions and diagnostics, giving you more control.

An automatic grease bellows system is mess-free, allowing for more efficient use of grease.



Operator's Station



# JT21 HORIZONTAL DIRECTIONAL DRILL

OPERATION	U.S.	METRIC
Spindle speed, max	270 rpm	
Spindle torque, max	2,250 ft-lb	3050 N-m
Carriage thrust travel speed	215 fpm	65.5 m/min
Carriage pullback travel speed	215 fpm	65.5 m/min
Thrust force	20,000 lb	89 kN
Pullback force	21,000 lb	93.4 kN
Bore diameter	4 in	102 mm
Backreamer diameter	Soil dependent	
Ground travel speed		
Forward/reverse	2.9 mph	4.7 km/h

## POWER

Engine	Deutz®TD2.9	
Fuel	Diesel	
Cooling medium	Liquid	
Injection	Direct	
Aspiration	Turbocharged	
Number of cylinders	4	
Displacement	177 in <sup>3</sup>	2.9 L
Bore	3.62 in	92 mm
Stroke	4.33 in	110 mm
Manufacturer's gross power rating	74 hp	55 kW
Rated speed	2,600 rpm	
Emissions compliance, highly regulated	EPA Tier 4	EU Stage V
Emissions compliance, less regulated	EPA Tier 4i	EU Stage IIIA

## DIMENSIONS

Length	217.9 in	5.53 m
Width	55.5 in	1.41 m
Height	95.5 in	2.43 m
Operating weight	12,420 lb	5634 kg
Entry angle	11-15°	
Angle of approach	17°	
Angle of departure	17°	

DRILLING FLUID SYSTEM	U.S.	METRIC
Pressure, max	1,000 psi	69 bar
Flow, max	35 gpm	132 L/min

## FLUID CAPACITIES

Hydraulic reservoir	16.4 gal	62.1 L
Fuel tank	28.2 gal	106.7 L
Engine lubrication oil, w/filter	9.5 qt	9 L
Cooling system	5 gal	18.9 L

## POWER PIPE®

Length of drill pipe	120 in	3.05 m
Diameter of drill pipe, tool joint end	2.63 in	66.8 mm
Diameter of drill pipe	2.06 in	52.3 mm
Bend radius, min	107 ft	32 m
Weight of drill pipe, lined	67 lb	30.4 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 6394	< or = 82 dBA
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## VIBRATION LEVEL

Average vibration transmitted to the operator's hand and whole body during normal operation does not exceed 2.5 and 0.5 m/sec<sup>2</sup> respectively.

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.

