

# D220x500 S3 NAVIGATOR<sup>®</sup>

## HORIZONTAL DIRECTIONAL DRILL



**POWERFUL TORQUE.** Operators can adjust the drill from 30,000 ft-lb to 52,600 ft-lb (40,675 Nm to 71,316.1 Nm) of rotary torque, with maximum torque being highly advantageous when turning large-diameter reamers and hole openers for installing large-diameter product.



**MUD FLOW.** The enhanced water course system features four 1.5-in (3.8-cm) mudlines and a 3-in (7.6-cm) head shaft, allowing high volumes of fluid to be pumped downhole.



**DRILL ROD ADVANTAGES.** The 30-ft and 20-ft (9.1-m and 6.1-m) rack supports a variety of drill pipe options and can reduce the number of connections. The 20-ft version can support a smaller jobsite footprint which can be key for densely populated environments.



### CHOOSE YOUR DRILLING EXPERIENCE.

Choose an excavator-style cab (cab on) for fast, compact setup and view of the semi-open top vise, rack and rod loader. A stand-alone operator's station helps provide optimal operator comfort and room for the steering hand. Both the cab and operator's station include the same dual multifunction joystick controls found on all Vermeer S3 horizontal directional drills.



### CATWALK AND ROD STAGER OPTIONS.

The full-length catwalk provides access to the entire length of the rack for ease of wire lining and assisting in the rod loading process. The rod stager option helps improve overall efficiency by staging rods in advance and cycling rods with a touch of a button.



### CARRIAGE SPEED.

The high carriage speed aids in fast rod cycle time when adding or removing drill rods and helps cut down on cycle time when tripping out of the borehole.

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## GENERAL DIMENSIONS AND WEIGHTS

Minimum transport length, 20-ft (6.1-m) rod option: 43.2 ft (13.2 m)

Minimum transport length, 30-ft (9.1-m) rod option: 50.8 ft (15.5 m)

Minimum transport width: 100 in (254 cm)

Maximum weight, 20-ft (6.1-m) rod option: 89,600 lbs (40,642 kg)

Maximum weight, 30-ft (9.1-m) rod option: 92,500 lbs (41,958 kg)

## ENGINE

Make and model: Caterpillar C13 ACERT Tier 4 Final (EU Stage V)

Fuel type: Ultra-low sulfur diesel

Maximum engine rpm: 2,100 rpm

Idle speed: 800 rpm

Rated rpm: 2,000 rpm

Gross horsepower: 415 hp (310 kW)

Cooling method: Liquid

Aspiration: Turbocharged

Max fuel consumption: 21.3 gph

Emissions rating: Tier 4 Final (EU Stage V)

Maximum operating angle: 30°

## OPERATIONAL

Thrust/pullback: 240,400 lb (1,069.4 kN)

Maximum carriage speed in high at maximum engine rpm: 147 fpm (44.8 m/min)

Maximum carriage speed in low at maximum engine rpm: 42 fpm (12.8 m/min)

Low speed rotation gearbox maximum spindle torque: 52,600 ft-lbs (71,316 Nm)

Low speed rotation gearbox maximum spindle torque: 97 rpm

High speed rotation gearbox maximum spindle torque: 38,200 ft-lbs (51,792 Nm)

High speed rotation gearbox maximum spindle torque: 136 rpm

Maximum ground drive speed at maximum engine rpm (forward and reverse): 1.9 mph (3.1 km/hr)

Noise level at operator's ear (on-board cab): 85 dB(A)

Minimum bore diameter: 6.1 in (15.4 cm)

Drill rack angle: 8.5° - 16° (14.9% - 28.7%)

## FLUID CAPACITIES

Fuel tank: 132 gal (500 L)

## DRILLING FLUID SYSTEM

Maximum flow: 350 gpm (1,323 L/min)

Maximum pressure: 1,200 psi (82.7 bar)

Make: Weatherford

## CRANE

Maximum lifting capacity: 4,740 lb (2,150 kg)

Maximum lifting capacity at max reach: 2,530 lb (1,148 kg)

Rotation: 360°

Maximum reach: 26.3 ft (8 m)

Wireless remote: Yes

## FEATURES

Breakout system: Semi-open top vise

Drilling lights: Yes

Flow indicator: Yes

Stakedown system: Yes

Cab: Yes

Strike alert: Yes

Remote lockout: Yes

AutoTension: Yes

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