

77XD



Rotary and DTH drilling

Working ranges

Hole diameter	200 mm to 270 mm	7 7/8 in. to 10 5/8 in.
Maximum single pass	16.8 m	55 ft.
Maximum multi-pass	59.4 m	195 ft.
Maximum bit loading	34,925 kg	77,000 lbs.

Mast/tower		
Mast construction	Structural plate steel	
Mast raising cylinders	Hydraulic (2x)	
Carriage/rotary head travel	19.1 m	62.5 ft.
Maximum bit loading	34,925 kg	77,000 lbs.
Mast length	22.9 m	75.0 ft.
Mast width	1.0 m	39.4 in
Mast depth	1.0 m	39.5 in
Angle drilling (optional)	0-30°	5° increments

Pipe handling		
Type		
Single-pass: 2 pipe carousel for 33.5 m (110') total depth		
Multi-pass: 5 pipe rotary carousel for 59.4 m (195') total depth		
Pipe size		
Diameter	159, 178, 194, 203, 219 mm	6 1/4, 7, 7 5/8, 8, 8 5/8 in
Length	8.38 m	27.5 ft
Options		
Ability to handle 25 ft pipe		

Feed system		
Type	Rack and pinion	
Pulldown force	302 kN	67,912 lbf
Hoisting force	302 kN	67,912 lbf
Carriage speed (maximum)	0 to 48.0 m/min	0 to 157.5 ft/min
Motor type (hydraulic)	Variable displacement axial piston, with integral brake	

Rotary head		
Rated power	158 kW	212 hp
Torque (variable) at 100 rpm	16.3 kN/m	12,000 ft-lbs
Speed (variable)	200 rpm @ 8,000 ft-lbs	
Motor type (hydraulic)	Variable displacement axial piston	

Lower works and propel		
Crawler type	B8 excavator-type	
Motor type	Two-speed, variable displacement piston	
Low propel speed	0-1.86 kph	0-1.16 mph
High propel speed	0-3.12 kph	0-1.94 mph
Gradeability mast down	38°	
Shoe/track pad width (standard)	750 mm	29.5 in
Shoe/track pad width (optional)	900 mm	35.4 in
Ground pressure with standard shoe	145 kPa	21.0 psi

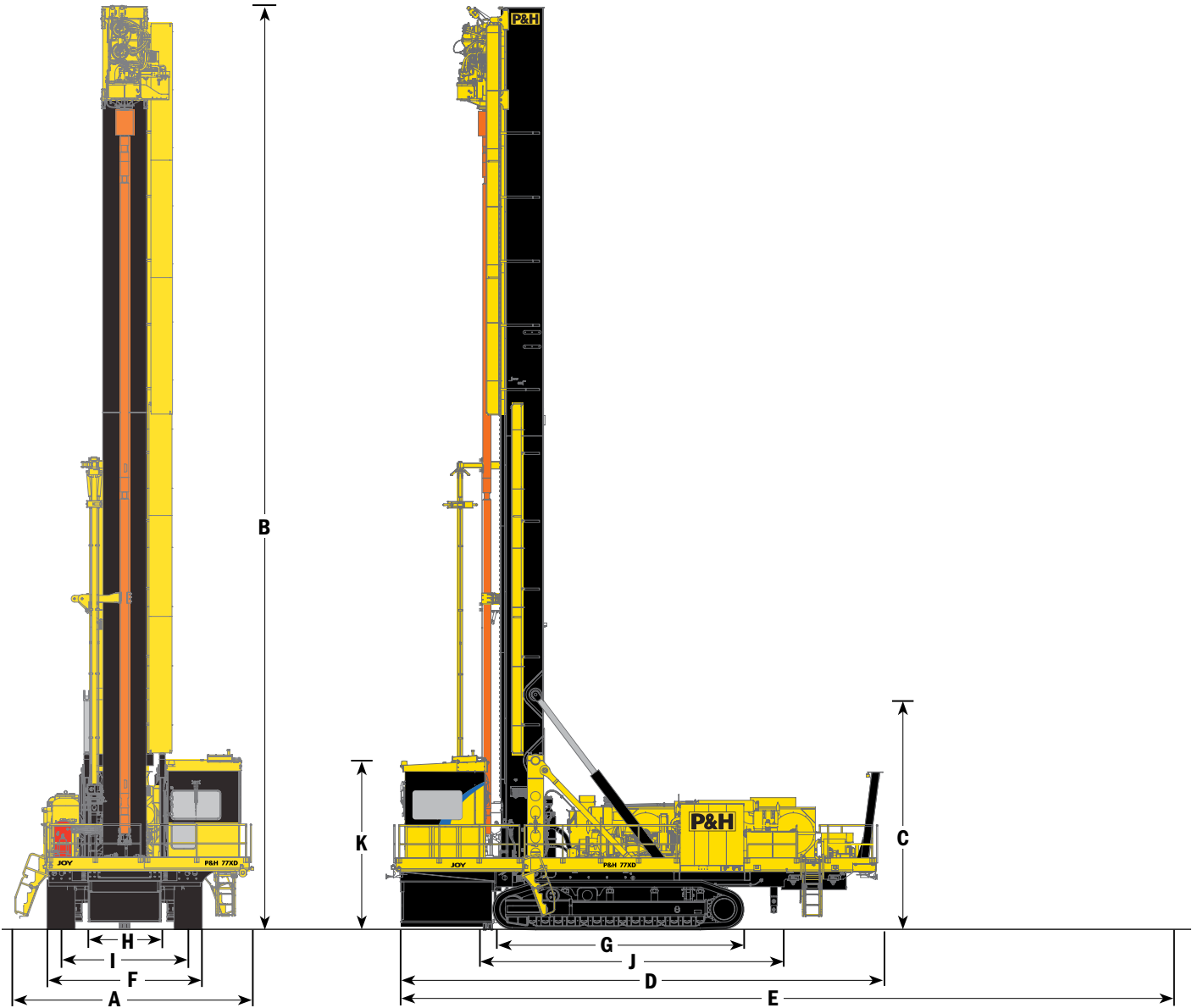
Air system		
Compressor type	Rotary screw, oil flooded	
Standard output	56.6 m/min	2000 cfm
Operating pressure	6.89 bar	100 psi
Optional output	73.6 m/min	2600 cfm
Operating pressure	6.89 bar	100 psi
Optional output, two-stage	42.5 m/min	1500 cfm
Operating pressure	24.13 bar	350 psi
Compressor control	Electrically actuated, CANbus	

Fluids/maintenance		
Fuel tank capacity (standard)	1514 litres	400 gallons
Fuel tank capacity (optional)	2366 litres	625 gallons
Water tank capacity (standard)	1514 litres	400 gallons
Hydraulic tank capacity	1136 litres	300 gallons
OGL tank capacity	68 litres	18 gallons
Ground level battery and starter isolation		
Quick fluid service system (fuel, hydraulic, engine oil, coolant, compressor oil, grease and water) at ground level		
Live oil sampling		

Power unit		
Diesel engine/model	MTU 12V1600	Non-reg and tier4
Power rating	630-730 kW	844-979 hp
Diesel engine/model	Cummins QSK23	Non-reg and tier2
Power rating	567-708 kW	760-950 hp

Dust control		
Dust curtains (standard)		
Electric actuator for dust curtains (optional)		
Water injection system (standard)		
Preheat system (for water injection)		
Dry dust collector (optional)		

DTH drilling		
Up to 203 mm (8 in) Down-the-Hole Hammer with 229 mm (9 in) maximum bit diameter		



Overall dimensions		
A	Width, overall	5.43 m 17 ft. 10 in.
B	Height, mast up	24.5 m 80 ft. 5 in.
C	Height, mast down	7.0 m 23 ft. 0 in.
D	Length, mast up	13.1 m 43 ft. 0 in.
E	Length, mast down	24 m 78 ft. 9 in.
F	Overall width of crawlers	4.12 m 13 ft. 6 in.
G	Overall length of crawlers	7.02 m 23 ft. 0 in.
H	Width of non-drill end jacks	1.4 m 4 ft. 7 in.
I	Width of drill jacks	2.85 m 9 ft. 4 in.
J	Length between jacks	7.14 m 23 ft. 5 in.
K	Height to top of operators cab	4.36 m 14 ft. 4 in.

General features		
Operators cab		
• FOPS level II		
• Sound level rating of 72 dB(A) or less		
• HVAC with pressurizer		
• Air suspended operators seat		
• Interior and exterior LED lighting		
• Refrigerator		
• Trainer/buddy seat		
• Window tint		
Lighting		
• LED lighting		
Drill deck		
• Boarding stairs		
Lubrication		
• Centralized lubrication		
• Automatic lubrication (machinery)		

Optional equipment

Operators cab

- Window shades
- Walk around cab access
- Microwave
- Storage locker
- AM/FM/WB/USB/iPod/iPhone/Satellite radio
- DIN EN 15695 level cab filtration

Lubrication

- Centralized fluid drains
- Preheat system (auto lube)
- Extended maintenance interval filtration
- Bit lubrication

Drill deck

- Boarding ramp (main access only)
- Auxiliary power unit (APU)
- Preheat system (for APU)
- Radio remote control (propel and leveling)
- Mast access platform
- Cold weather package
- Tool kit, drilling tools
- Tool kit, maintenance
- Storage locker/job box
- Machinery area enclosure
- Engine cover, rain guard
- Additional sound suppression
- Pressure washer
- Deck crane option

Drill automation

- High precision GPS navigation
- Single-machine tele-remote control
- Auto hole-to-hole navigation
- Obstacle detection and mitigation
- Hawkeye 360° camera system
- Auto pipe changing
- Auto mast positioning
- Auto dust suppression
- Adaptive auto level
- Enhanced auto drill

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