

ZJ21 hydraulic jumbo



Safety



Reliability



Productivity



Drilling equipment

Jumbo hydraulics	Variable displacement piston pumps with load sensing for feed and boom movements.
Controls	Intelsense control system incorporating these features: collaring, anti-jamming, control levers for operating percussion, rotation and feed and optional auto return to start position following hole completion.
Feed-boom position	Inline
Drill	
Komatsu	JZD10 (10 kW (13 HP)), JZD12 (12 kW (16 HP)) or JZD21 (21kW (28 HP))
Leveling jacks	
Front (standard with unit)	2
Rear (standard with unit)	2

Drilling equipment

Boom quantity	1
Boom coverage (height)	8 175 mm (26 ft. 9 in)
Boom coverage (width)	9 286 mm (30 ft. 5 in)
Boom extension	1 400 mm (4 ft. 7 in)
Feed extension	1 262 mm (4 ft. 1 in)
Guide rollover	360°
Available feeds	
Fixed 8 steel	2 438 mm (7 ft. 11 in)
Hole depth	2 164 mm (7 ft. 1 in)
Fixed 10 steel	3 048 mm (10 ft.)
Hole depth	2 768 mm (9 ft.)
Fixed 12 steel	3 658 mm (12 ft.)
Hole depth	3 378 mm (11 ft.)
Fixed 14 steel	4 267 mm (13 ft. 11 in)
Hole depth	3 988 mm (13 ft. 1 in)
Fixed 16 steel	4 879 mm (16 ft.)
Hole depth	4 598 mm (15 ft. 1 in)
Telescopic 8-12 steel	2 438-3 658 mm (8-12 ft.)
Hole depth	3 378 mm (11 ft. 0 in)
Telescopic 8-14 steel	2 438-4 267 mm (8-14 ft.)
Hole depth	3 988 mm (13 ft. 1 in)

Drilling electrics

JZD10	One 56 kW (75 hp) TEFC electric motor (voltage as per application) NEMA 4 MCP Enclosure
JZD12	One 56 kW (75 HP) TEFC electric motor (voltage as per application) NEMA 4 MCP enclosure
JZD21	One 75 kW (100 hp) TEFC electric motor (voltage as per application) NEMA 4 MCP enclosure
Cable reel capacity	
Voltage dependant	Min. 75 m (245 ft.) Max. 110.00 m (360 ft.)

Weights

Operating weight (base unit)	15 100 kg (33,220 lbs.)
Operating weight (fully optioned)	17 100 kg (37,620 lbs.)

Driving speeds forward and reverse (0% grade)

1st gear (0% grade)	5.0 km/h (3.1 mph)
2nd gear (0% grade)	10.0 km/h (6.3 mph)
Standard grade (20% up grade)	3.0 km/h (1.9 mph)

Powertrain

General	
Exhaust system	Diesel oxidation catalyst
Exhaust system optional	Diesel particulate filter
Fuel tank capacity	63 L (17 US gal)
Transmission	Dana T12000 series with integrated torque converter
Controller	Dana APC213 controller
Shifting	Powershift
Speeds	two forward/two reverse
Axles	
Front and rear	Dana 112
Differential	No-spin
Brakes - service	Enclosed wet disc
Brakes - parking	Hydraulically-released/spring-applied
Oscillation angle	+/- 7 deg
Tires	Solid, lugged
Size	12-20

Feed options

Fixed feed lengths	
8 ft.	
10 ft.	
12 ft.	
14 ft.	
16 ft.	
Telescopic feed options	
8/12 ft. (8 ft. drill steel collapsed 12 ft. drill steel extended- drill depth depending on centralizer option)	
8/14 ft. (8 ft. drill steel collapsed 14 ft. drill steel extended- drill depth depending on centralizer option)	
Centralizers	
Hydraulic centralizer	
Configurable traveling and end centralizer types	
Quick change bushing	
Hardened bushing	
Soft bushing	
Optional auto return on feeds	
Optional hydro expanding bolts with pump	

Engine specifications

Engine	Cummins QSB3.3
Certification	EPA Tier 3, MSHA
Ventilation	OHSA@100 cfm/hp = 9900 cfm MSHA-07-ENA110017 = 4000 cfm
Displacement	3.3 L
Output	74 kW (99 hp) @2600 rpm
Maximum torque	415 Nm (306 ft.-lbs.) @1600 rpm
Cooling type	Water cooled, charge air cooled

Carrier hydraulics

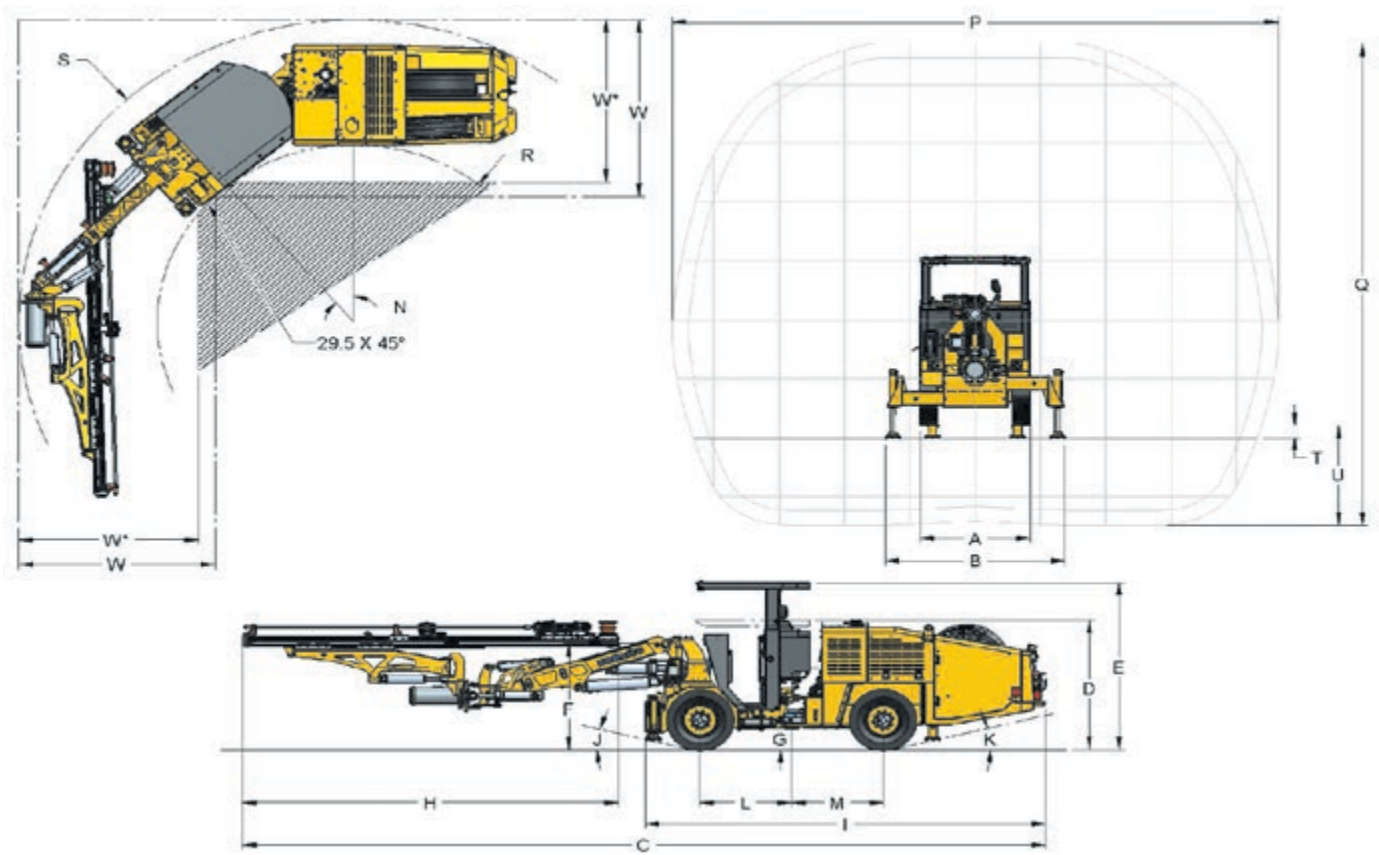
General	Variable displacement piston pumps with load sense
Oil tank volume	180 L (48 US gal)
Tank filling	Mechanical pump
Tank filling optional	Electric pump, Wiggins
Steering hydraulics	Variable displacement piston pumps with load sense. Two double-acting steer cylinders.
Brake system	Totally enclosed service brake is hydraulically-applied, spring-released on front and rear axles with automatic brake application.

Carrier electrics

Alternator	24 V/60 A
Batteries	2 x 12 V
Starter	24 V heavy duty
Tram lights	2 front/2 rear
Drill lights	4 front

Operator console

Canopy	FOPS/ROPS certified ISO 3449 (2005) and ISO 3471 (2008)
Cabin optional	FOPS/ROPS Certified Enclosed Cabin ISO 3449 (2005) and ISO 3471 (2008)
Seat	Mechanical suspension seat



Overall dimensions

A	Maximum width	1 680 mm (5 ft. 6 in)
B	Maximum width with outriggers extended	2 747 mm (9 ft.)
	Total length	Configuration dependent
C	Min (with fixed 8 ft. feed)	11 845 mm (38 ft. 10 in)
	Max (with fixed 16 ft. feed)	12 703 mm (41 ft. 8 in)
D	Height with canopy in collapsed position	2 210 mm (7 ft. 3 in)
E	Height with canopy in drill/tram position	2 852 mm (9 ft. 4 in)
F	Height to boom center	1 810 mm (5 ft. 11 in)
G	Ground clearance	381 mm (1 ft. 3 in)
	Feed Length	Configuration dependent
H	Min (with fixed 8 ft. feed)	3 945 mm (12 ft. 11 in)
	Max (with fixed 16 ft. feed)	6 383 mm (20 ft. 11 in)
I	Carrier length	6 123 mm (20 ft. 1 in)
J	Approach angle	14 deg/25% grade
K	Departure angle	18 deg/32% grade
L	Articulation to front axle	1 400 mm (4 ft. 7 in)
M	Articulation to rear axle	1 400 mm (4 ft. 7 in)
T	Jack lift	210 mm (8 in)

Minimum mine dimensions

W	90° Aisle width	3 000 mm (9 ft. 10 in)
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Turning radius

R	Inner	2 295 mm (9 ft. 9 in)
S	Outer	5 118 mm (16 ft. 9 in)
N	Turning angle	40 deg

Coverage dimensions

P	Boom coverage (width)	9 286 mm (30 ft. 5 in)
Q	Boom coverage (height) minimum	8 175 mm (26 ft. 9 in)
U	Total undercut	1 700 mm (5 ft. 6 in)

Standard features

LCD dash	•
ROPS/FOPS certified canopy - ISO 3449 (2005) and ISO 3471 (2008)	•
Mechanical suspension seat	•
Joystick boom/drill controls	•
LED working lights	•
Parking brake	•
Articulation lock brace mounted to machine	•
Timberock 4 m (14 ft.) single stage feed	•
Montabert JZD12 drifter	•
Fixed centralizers	•
5.5 kW (7.4 HP) air compressor	•
Water pump	•
Cable reel	•
Mechanical fill for hydraulic tank	•
Outriggers	•
Intelsense	•
Single 10 lbs. fire extinguisher	•
Water flushing	•
Back-up alarm	•
Centralized carrier lubrication station	•

Cabin/canopy options

CB radio mount	•
CB radio antenna	•
Radio with speakers	•
Rock guard	•
Floor mat	•
Seatbelt sensor	•
Door sensor (cabin only)	•
Manual controlled spot lights (canopy only)	•
Joystick controlled spot lights (cabin only)	•

Environmental packages

High altitude package	
Elevation	•
Options included	
Low ambient temperature package	
Temperature range -40 degrees Celsius to +10 degrees Celsius	•
Options included - corrosive environment package, low ambient cooler, oil heater, high viscosity fluids	
Corrosive environment package	
Options included - corrosion-resistant components including: hydraulic cylinders, radiator, hose ends/fittings on all air/water lines and Nema 4X rated MCP enclosure	•

Flushing options

Water flushing + air blast	•
Water flushing + air blast + air mist	•

Language options

English, Spanish, Russian, French	•
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Options

Various voltages: 380V / 50Hz, 440V / 60Hz, 480V / 60Hz, 525V / 50Hz, 575V / 60Hz	•
Cab (FOPS/ROPS certified) - ISO 3449 (2005) and ISO 3471 (2008) w/ climate control	•
Hydraulic centralizer	•
Rear view camera	•
11 kW air compressor	•
85 m hose reel	•
Fire suppression system (manually actuated)	•
Fire suppression system (manually actuated) with Checkfire system	•
Hydro expanding bolt unit	•
Pressure washer with 20 m reel (standard finish)	•
Pressure washer with 20 m reel (stainless steel finish)	•
Secondary 20 lbs. fire extinguisher	•
Electric fill for hydraulic tank	•
Wiggins fill for hydraulic tank (standalone or with electric fill)	•
Wiggins fill for fuel tank	•
Centralized greasing for boom	•
Carrier auto lubrication system	•
Grease station with hose reel and drum pump	•
Wheel chocks with bracket	•
Drill on diesel power (available only with JZD10)	•
Fiberglass exhaust wrap	•
Wye-Delta starter	•
Cable hangers	•
Red/green directional lights (front and rear)	•
Beacon light kit	•
Brake lights	•
Front electronic curtain	•
Jump start receptacle	•
Air/water maintenance kit	•
Rear-mounted reel control box	•
Dewatering pump ready (pump not included)	•
Abrasion resistant boom hosing	•
Trailing cable (standard, extended length with cable hangers)	•
CE-certified MCP and components	•
CSA-certified MCP and components	•
(Other options available - ask your Komatsu service representative)	

Further equipment on request

- standard equipment
- optional equipment

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