

## ZB21

Hydraulic bolter



Safety



Reliability



Productivity



### Drilling equipment

Bolter hydraulics	Variable displacement piston pumps with load-sensing, closed-circuit design for bolter head and boom movements.
Controls	Intelsense control system incorporating these features: collaring, anti-jamming, automatic water monitoring with feed return should low pressure be encountered, auto return to start position following hole completion, and control levers for operating bolter head.

### Drilling equipment

Boom quantity 1	
Boom coverage (height)	6.90 m (22 ft 3 in)
Boom coverage (width)	7.70 m (25 ft 2 in)
Boom extension	1400 mm (25 ft 2 in)
Feed extension	427 mm (17 in)
Stinger extension	452 mm (18 in)
Guide rollover	360°
Carousel capacity	9 bolts
Available bolt lengths	
5	1524 mm (5 ft)
6	1829 mm (6 ft)
7	2134 mm (7 ft)
8	2438 mm (8 ft)
Bolter position	Inline
Drill	
Komatsu	JZD08 (8 kW), JZD10 (10 kW), or JZD12 (12kW)
Leveling jacks	
Front (standard with unit)	2
Rear (standard with unit)	2

Drilling electrics

JZD08, JZD10, JZD12	One 56 kW(75 hp) TEFC electric motor (voltage as per application) NEMA 4 panels
Cable reel capacity	
Type G-GC	90.00 m (295 ft)

Weights

Operating weight (base unit)	14,900 kg (32,800 lbs)
Operating weight (fully optioned)	16,800 (36,900 lbs)

Driving speeds forward and reverse (0% grade)

1st gear	3.1 km/h (1.9 mph)
2nd gear	6.8 km/h (4.3 mph)
3rd gear	17.0 km/h (10.6 mph)

Powertrain

General	
Exhaust system	Purimuffler
Fuel tank capacity	63 litres (17 USG)
Transmission	Dana T12000 series with integrated torque converter
Shifting	Powershift
Speeds	3 forward/3 reverse (optional lock-out on 3rd)
Axles	
Front and rear	Dana 112
Differential	No-spin
Brakes - service	Enclosed wet disc
Brakes - parking	Hydraulically-released/spring-applied
Oscillation angle	+/- 7°
Tires	Solid, lugged
Size	10 x 20

Boom and Bolter head options

Optional 4 wire hydraulic hose kit from control valves forward	
Optional bolter heads	
8 ft	
7 ft	
6 ft	
Optional Bolter head attachments	
Hydraulic centralizer	
Configurable traveling centralizer	
Resin injection system	
Adjustable carousel for two bolt lengths	
Optional auto return on bolter heads	
Optional mesh handler	
Optional single rod adding system	
Optional swelllex configuration	
Optional drifters	
JZD08	
JZD10	
Optional rotary drilling unit from JOY for industrial minerals	

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 litres
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 pump with load-sensing, closed center circuit design for optimal efficiency.
Oil tank volume	180 litres (48 gallons)
Tank filling	Manual pump
Tank filling optional	Electric pump, Wiggins
Steering hydraulics	Variable displacement piston pump with load-sensing, closed center circuit design. Stick steering with a direct-acting control valve. 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	24V/120A
Batteries	2 x 12 Volts
Starter	24V heavy duty
Tram lights	2 front/2 rear
Drill lights	4 front

Operator

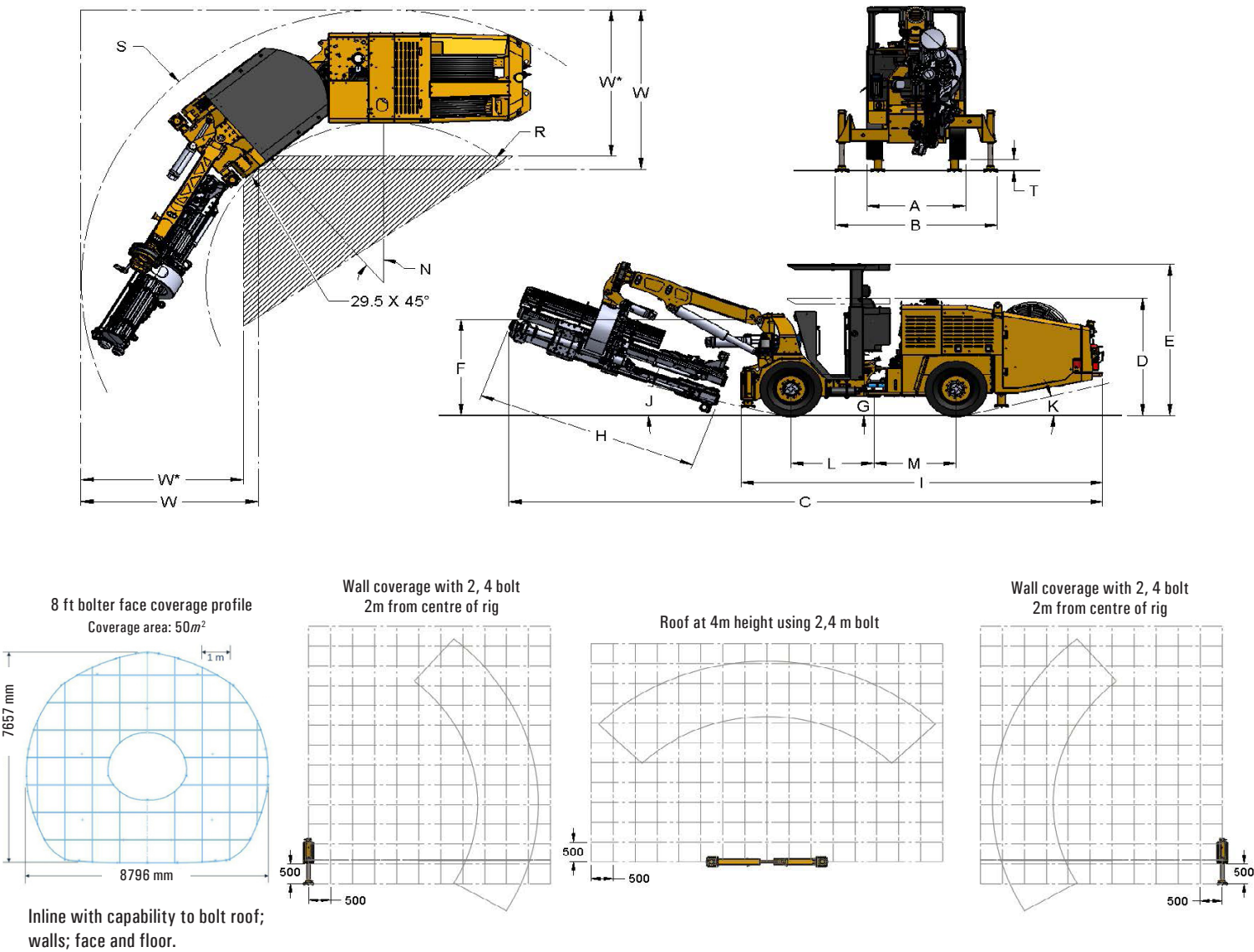
Canopy	FOPS/ROPS certified
Seat	Mechanical suspension seat

Tank filling

Base spec manual fill	
Options	Electrical filling, Wiggins fast fill fitting

Electrical options

Soft start or wye delta	
Voltages	
380V/50Hz	
460V/60Hz	
575V/60Hz	
Optional CE certified MCP and components	
Optional CSA certified MCP and components	
Optional Face dewatering Plug and switch	
Optional Swelex pump and switch	
Cable stop and cable anchor (Electrical cable)	
Electrical cable	



Inline with capability to bolt roof;  
walls; face and floor.

Overall dimensions

A	Maximum width	1680 mm (5 ft 6 in)
B	Maximum width with outriggers extended	2747 mm (5 ft 9 in)
C	Total length	10060 mm (33 ft)
D	Height with canopy in collapsed position	2200 mm (9ft 4 in)
E	Height with canopy in drill/tram position	2837 mm (7 ft 3 in)
F	Height to boom center	1796 mm (4 ft 3 in)
G	Ground clearance	365 mm (1 ft 2 in)
H	Bolter length	3804 mm (12 ft 6 in)
I	Carrier length	6123 mm (12 ft 1 in)
J	Approach angle	14°
K	Departure angle	14°
L	Articulation to front axle	1400 mm (55 in)
M	Articulation to rear axle	1400 mm (55 in)
T	Jack lift	210 mm (8 in)

Minimum mine dimensions

W	90° isle	3279 mm (10 ft 9 in)
W*	Corner isle	3000 mm (9ft 10 in)

Turning radius

R	Inner	3006 mm (9 ft 10 in)
S	Outer	5118 mm (16 ft 10 in)
N	Turning angle	40°

### Standard and optional features

LCD dash	●
ROPS/FOPS certified canopy	●
Mechanical suspension seat	●
Joystick boom/drill controls	●
LED working lights	●
Parking brake	●
Articulation lock brace mounted to machine	●
5 ft bolter head	●
Komatsu JZD08 drifters	●
Fixed centralizers	●
5.5 kW air compressor	●
Water pump	●
Cable reel	●
Mechanical fill for hydraulic tank	●
Mechanical fire suppression	●
Outriggers	●
Intelsense	●
Single 12 lb fire extinguisher	●
Various voltages: 380V / 50Hz, 460V / 60Hz, 575V / 60Hz	○
Cab (FOPS/ROPS certified) with air conditioning or heat	○
Rear view camera with separate screen	○
Hydraulic centralizers	○
Resin injection system	○
Adjustable carousel for two bolt lengths	○
Optional mesh handler	○
Centralized greasing for boom	○
11 kW air compressor	○
85 m hose reel	○
Fire suppression with checkfire system	○
Swellex pump	○
High pressure water washer with 20 m reel	○
Secondary 20 lb fire extinguisher	○
Electric fill for hydraulic tank	○
Wiggins fill for hydraulic tank and/or fuel tank	○
Backup alarm	○
Beacon light kit	○
Auto lubrication system	○
Grease station with hose reel and drum pump	○
Wheel chocks with bracket	○
Specialized environment packages	○

### Carrier options

Rear view camera with separate screen	○
Secondary fire extinguisher (20Lb)	○
Electric fill for hydraulic tank	○
Main filters have electric fault indicators	○
Fast fill for hydraulic and fuel tanks (Wiggins fitting)	○
Fittings for kidney loop filtration	○
Audible backup alarm	○
Fire detection and suppression system (check fire)	○
Larger compressor to enable air mist drilling without mine air	○
Water hose reel catering for 1 in water hose and 85 m	○
Solid fill tires	○
12VDC power supply in canopy	○
24VDC power supply in canopy	○
24VDC (switched) power supply in canopy	○
12VDC power port in canopy	○
2-way radio receptacle with antennae bracket (radio to be supplied by customer)	○
Jump start receptacle	○
Fully enclosed operators cabin with air conditioning c/heater, filtered and pressurized, noise level in cab with machine at full power less than 85dB(A)	○
External park brake release system	○
Beacon light kit	○
Auto lubrication system (carrier only)	○
High pressure water washer	○
Centralized greasing for boom	○
Optional grease station with hose reel and drum pump with drum stand	○
11 kW air compressor for air mist drilling/ air blast without mine air	○
Swellex pump	○
Wheel chocks with bracket	○

### Environment options

High altitude package	○
Artic package	○
Harsh water package	○

Further equipment on request

- standard equipment
- optional equipment

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