

ZB21

Hydraulic bolter



Safety



Reliability



Productivity



Drilling equipment

Bolter hydraulics	Variable displacement piston pumps with load-sensing for bolter head and boom movements
Controls	Intelsense control system incorporating these features: collaring, anti-jamming, auto return to start position following hole completion, and control levers for operating bolter head

Drilling equipment

Boom quantity	1	
Boom coverage (height)	6 900 mm	22 ft. 3 in
Boom coverage (width)	7 700 mm	25 ft. 2 in
Boom extension	1 200 mm	3 ft. 11 in
Feed extension	427 mm	1 ft. 5 in
Stinger extension	452 mm	1 ft. 6 in
Boom roll over	360 deg	
Carousel capacity	9 bolts	
Available bolt lengths		
5	1 524 mm	5 ft.
6	1 829 mm	6 ft.
7	2 134 mm	7 ft.
8	2 438 mm	8 ft.
Bolter position	Inline	
Drill		
Montabert	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	
Power requirements (configuration dependent)		
380 V	64.5 kW min	106.2 kW max
440 V	66.0 kW min	106.2 kW max
480 V	64.5 kW min	106.2 kW max
525 V	64.5 kW min	106.2 kW max
575 V	64.5 kW min	106.2 kW max
Cable reel capacity (voltage dependent)		
min	75 m	246 ft.
max	110 m	360 ft.

Weights

Operating weight (base unit)	15 300 kg	33,660 lbs.
Operating weight (fully optioned)	17 100 kg	37,620 lbs.

Driving speeds forward and reverse

1st gear (0% grade)	5.0 km/h	3.1 mph
2nd gear (0% grade)	10.0 km/h	6.3 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 w/ integrated torque converter	
Shifting	Powershift	
Speeds	2 forward/2 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	12.00 - 20	

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 and/or Wiggins	
Steering hydraulics	Variable displacement piston pumps with load sense; two double-acting steer cylinders	
Brake system	Variable displacement piston pumps with load sense; two double-acting steer cylinders	

Carrier electrics

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

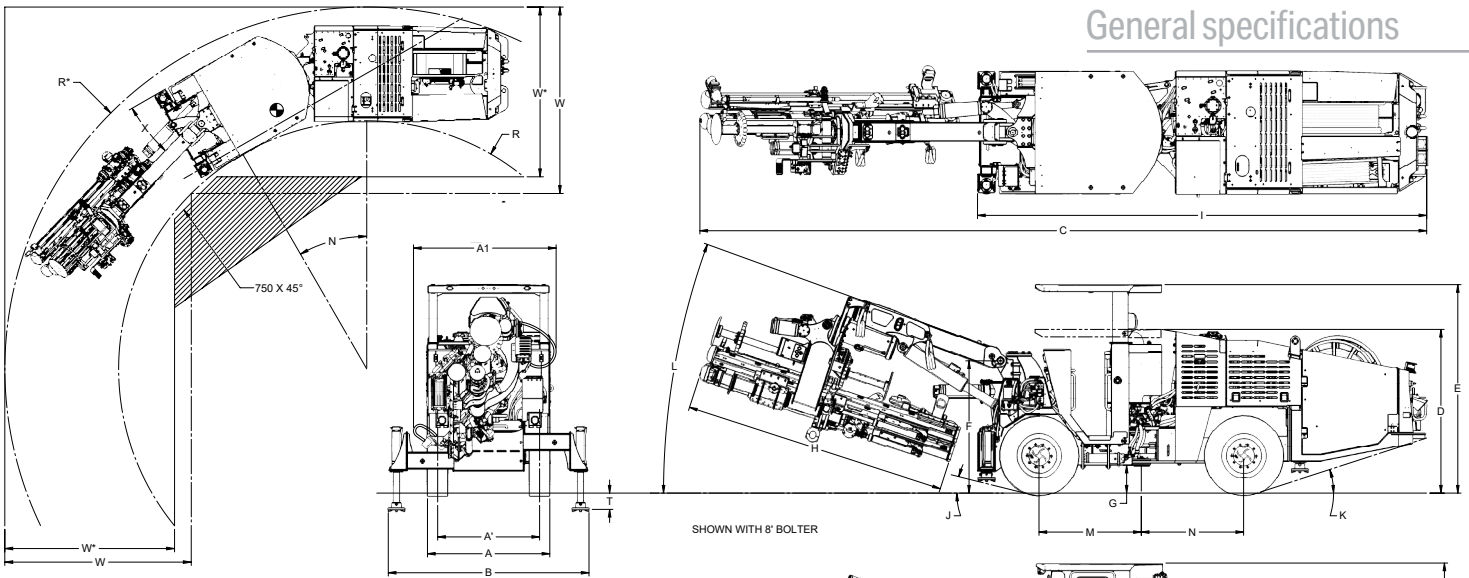
Operator console

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

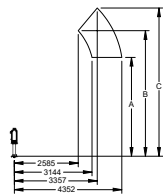
Engine specifications

Engine	Cummins QSB3.3
Certification	EPA Tier 3, MSHA, Canmet
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

General specifications

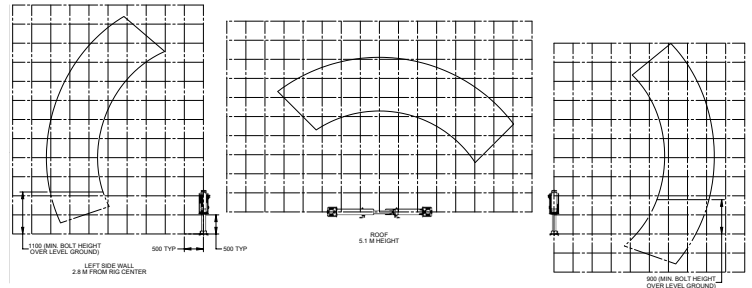


BACK HEIGHT CAPABILITY			
BOLTER	A (MIN)	B (OPTIMAL)	C (MAX)
5'	2893	4603	5522
6'	3178	4779	5698
7'	3481	4906	5825
8'	3785	5083	6002



Overall dimensions

A	Maximum width	1 680 mm	5 ft. 6 in
A'	Track width	1 400 mm	4 ft. 7 in
A1	Maximum Width (including hoses)	1 950 mm	6 ft. 4 in
B	Maximum width with outriggers extended	2 747 mm	9 ft.
C	Total length (configuration dependent)		
	Min (with 5' bolting head)	9 476 mm	31 ft. 1 in
	Max (with 8' bolting head)	9 940 mm	32 ft. 7 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
H	Bolter length		
	Min (with 5' bolting head)	2 686 mm	8 ft. 9 in
	Max (with 8' bolting head)	3 607 mm	11 ft. 10 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	Outer boom angle	20 deg	
M	Articulation to front axle	1 400 mm	4 ft. 7 in
N	Articulation to rear axle	1 400 mm	4 ft. 7 in
T	Jack lift	223 mm	8 in



Minimum mine dimensions

W	90 deg aisle width	3 295 mm	10 ft. 9 in
W*	Chamfered corner aisle width	3 000 mm	9 ft. 10 in

Turning radius

R	Inner	4 385 mm	14 ft. 4 in
R*	Feed Clearance/Outer Radius	6 396 mm	20 ft. 11 in
N	Turning Angle	30 deg	
X	Boom swing angle	19 deg	

Coverage dimensions

Sidewall coverage distance from rig center (configuration dependent)

Min (with 5' bolting head)	1 519 mm	4 ft. 11 in
Max (with 8' bolting head)	3 383 mm	11 ft. 1 in

Operating heights

Bolting head size	Operating height	Drill depth	Bolt head length	Bolt head length with 200mm x 200 mm plate option selected	Drill steel length
JZD12 or JZD08 Drifter					
5 ft. bolting head	2 893 mm 9 ft. 5 in	1 630 mm	2 694 mm	2 762 mm	1 870 mm 6 ft. 2 in
6 ft. bolting head	3 178 mm 10 ft. 5 in	1 935 mm	2 998 mm	3 066 mm	2 175 mm 7 ft. 2 in
7 ft. bolting head	3 481 mm 11 ft. 5 in	2 240 mm	3 303 mm	3 371 mm	2 476 mm 8 ft. 2 in
8 ft. bolting head	3 785 mm 12 ft. 5 in	2 545 mm	3 608 mm	3 676 mm	2 784 mm 9 ft. 2 in
JZD10 Drifter					
5 ft. bolting head- (Base with JZD 08)	3 080 mm 10 ft. 1 in	1 630 mm	2 694 mm	2 762 mm	1 870 mm 6 ft. 2 in
6 ft. bolting head	3 367 mm 11 ft. 1 in	1 935 mm	2 998 mm	3 066 mm	2 175 mm 7 ft. 2 in
7 ft. bolting head	3 671 mm 12 ft. 1 in	2 240 mm	3 303 mm	3 371 mm	2 476 mm 8 ft. 2 in
8 ft. bolting head	3 977 mm 13 ft. 1 in	2 545 mm	3 608 mm	3 676 mm	2 784 mm 9 ft. 2 in

Standard and optional 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	●
5 ft. bolter head	●
Komatsu JZD08 drifters	●
Fixed centralizers	●
5.5 kW air compressor	●
Water pump	●
Cable reel	●
Mechanical fill for hydraulic tank	●
Outriggers	●
Intelsense	●
Single 10 lb fire extinguisher	●
Water flushing	●
Back-up alarm	●
Centralized carrier lubrication station	●
Various voltages: 380V / 50Hz, 440V / 60Hz, 480V / 60Hz, 525V / 50Hz, 575V / 60Hz	○
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 lb 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	○

Standard and optional features

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)	○

Bolting options

Bolting heads to suit 6 ft., 7 ft. and 8 ft. bolts	○
Adjustable carousel for two bolt lengths	○
Resin injection system	○
Hydraulic centralizers	○
Mesh handler	○
Cartridge resin/cement injection system (23 mm, 25 mm, 28 mm, 30 mm, 32 mm)	○
Friction bolt options in 33 mm and 46 mm	○
Chemical bolt installation kit with square, hex and hangar bolt driver	○
Mechanical bolt installation (hex and square drive) covering: #5, #6, #7 bolts	○

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

Standard altitude package (Up to 3000 masl @ 40°C)	○
Corrosive environment package includes the following corrosion-resistant components: hydraulic cylinders, radiator, hose ends/fittings on all air/water lines and Nema 4X rated MCP enclosure	○
Low ambient temperature package includes corrosive environment package, low ambient cooler, oil heater, low viscosity fluids, tram range (-40°C to +10°C), drill range (-20°C to +10°C)	○

Flushing options

Water flushing + air blast	○
Water flushing + air blast + air mist	○

● standard equipment

○ optional equipment

Other options available - ask your Komatsu service representative

Product designs, specifications and/or data in this document are provided for informational purposes only and are not warranties of any kind. Product designs and/or specifications may be changed at any time without notice. The only warranties that apply to sales of products and services are Komatsu's standard written warranties, which will be furnished upon request.

Komatsu is a trademark of Komatsu Ltd. or one of its affiliates. All other trademarks and service marks used herein are the property of their respective owners or licensees.

KOMATSU
komatsu.com

