

KOMATSU



12CM30 Miner Bolter General Specifications





12CM30 rapid entry development miner bolter

The Joy 12CM30 miner bolter fully integrates the early installation of high strength roof bolts with the latest improvements in machine design and roof bolting technology.

Close bolt to face distance

Models fitted with a plough in place of the CLA (Centrifugal Loading Arm) gathering head system offer the closest vertical bolt placement to face distance. The bolt to face distance ranges between 2 — 2.5 metres depending on the model and specification. By angling the bolters forward toward the cut face and undercutting the cut face with the cutter head at the bottom, the bolt to face distance can be even further reduced. Reducing the bolt to face distance and enabling the early application of roof and rib bolts helps prevent the strata from separating and helps reduce strata movement. This can improve roadway stability and assist in reducing the need for secondary bolting.

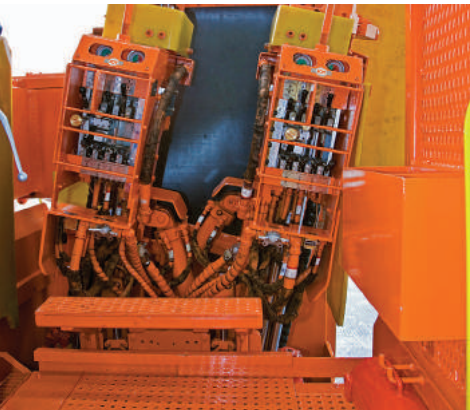
Roof and rib bolting capability

Up to four roofbolters mounted with swing and tilt cylinders provide maximum flexibility for a large number of vertical bolts, with inclined bolts at the roadway rib sides and over the central area of the roadway. The standard machine is equipped with one rib bolter on either side of the machine. The rib bolters can be mounted on a raise and lower and tilt mechanism to allow the maximum number of rib bolts to be placed in the rib and as close to horizontal as possible. A rib protection shield helps protect the safety of operators.

The 12CM30 miner bolter is equipped with Joy's reliable range of drill feed units and hydraulic rotation units. Depending on the specification, single pass drill lengths can be achieved from 1.5 metres to over 3.4 metres. The roofbolt drill rigs have integrated control units which are directly mounted via manifolds onto the drill feed and internally ported in order to provide excellent ergonomic control together with the elimination of all hoses to the control unit. This greatly improves safety, operator control and reliability. Two speed control, semi-automatic operations and two handed control are standard.

Options

Optional extras include integrated on-board ventilation ducting, integrated dust scrubber, mesh handling rails, on-board mesh rack storage and on-board materials storage pods.



Each roofbolter is equipped with a mast-mounted integrated control unit with semi-automated operation. The operator platform area is large for ease of operations and improving safety.

Joy 12CM30 miner bolter



The 12CM30 miner bolter has a wide installed base in longwall entry development applications in Australia, with an increasing presence in the Eurasian market. Over 15 years of continuous improvements and developments are incorporated in the latest models.



12CM30 Features

The Joy 12CM30 miner bolter is a single-pass machine designed for fixed roadway cutting widths with differing model options having drum extended widths of 4.8 or 5.0 or 5.2 or 5.4 meters.

Two gathering head choices are available: plough or centrifugal loading arm (CLA). Plough-type gathering optimizes the bolt-to-face distance while scrolling webs on cutter drums achieve simple and effective loading of coal onto the conveyor. CLA-type gathering uses proven high performance loading technology with gathering spinners common to other models in our range.

Hydraulic extensions on either side of the machine cutter head retract by 300 mm on each side, reducing the total cutting width by 600 mm to enable ease of tramming and withdrawal of the machine and to allow greater flexibility in cutting corners.

General specifications

Operating height range (depending on model)	From 2.4 to 4.6 meters
Loading rate	Up to 27 tonnes/min
Approximate weight	85 tonnes
Cutting widths (extended drums)	4800, 5000, 5200, 5400 mm
Cutting widths (retracted drums)	4200, 4400, 4600, 4600 mm
Conveyor	
Width	762 mm
Conveyor depth	305 mm
Chain pitch	83 mm
Speed	2.45 m/min
Nominal voltage supply	1040 V or 1100 V
Cutter head power	2 x 170 kW
Conveyor power	1 x 37 kW
Traction power	2 x 60 KW VFD drive
Hydraulic pump power	2 x 45 kW
Total machine power	587 kW

Multilingual display

On a standard control platform...

The Faceboss control platform can be configured to display a variety of languages. In combination with local field personnel, this multilingual control platform helps Joy equipment to achieve the goal of operating at the lowest cost per tonne, regardless of where the equipment is located.

This platform is standard across all Joy underground equipment, reducing inventory to support a typical fleet. This common platform reduces training requirements and enables ease of maintenance and trouble-shooting.



Komatsu Mining Corp. Group

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