

Programmable Electronic Roof Bolter Controls

Alan Bruce, BMA Crinum Mine

The Crinum production team has continued to work towards reducing the number of strain injuries relating to roof and rib bolting and improving the efficiency of the bolting cycle within its Development operations. The team has developed and implemented the concept of installing electro-hydraulic controls on the continuous miner bolting rigs. This has provided for substantially improved access the bolting rigs for operation and maintenance.

The equipment also incorporates a semi automated drilling and bolting process which is expected with time to improve the quality of roof and rib bolting through greater consistency in the bolt installation cycle.

The 3rd aim of the system is to measure specific energy of drilling. It is planned that data obtained through this will provide site geotechnical engineers with information about the immediate roof conditions an eventually enable calculation of empirical roof strength contours, optimisation of primary and secondary support in roadways and improve our understanding for future longwall mining risk.