

bauma – Automation and remote control play an ever more important role in mining

Date: 04-12-2007 09:15 AM CET

Category: [Industry, Real Estate & Construction](#)

Press release from: [Messe München GmbH](#)

Munich – Automation, remote control and monitoring, including via the Internet, are playing an ever more important role in machinery and equipment for mining above and below ground. Manless operations are now perfectly possible. bauma will be an opportunity to review all the latest technology and processes in this field. Manufacturers from all over the world will be coming to this event, the world's biggest international trade fair for machinery for the building and construction, building-materials and mining industries, which takes place from 23 to 29 April 2007 in Munich.

The first manless-operation drilling equipment and loaders were used underground over a decade ago, and significant progress has been made since then. Increasingly, workers are being moved away from the danger zones and, to achieve this, the information and communication technology that is available above ground is now also being utilised underground. As bauma will show, it is now possible, thanks to new system technology, to operate not only loaders and drills, but also monorail conveyors completely without human workers. Sensors, laser scanners and cameras do the job of the human senses. Ever more sophisticated computer programs ensure the fast, efficient operation of such manless systems.

Manless systems are controlled and monitored from a central control station. A precise image of the relevant section in the mine, plus corresponding work instructions, are sent by computer to the machinery. The rest is performed by the machines themselves. By means of a virtual three-dimensional image the operator can follow all the machine movements and all the working processes from his control station, and intervene immediately when necessary. He is also informed constantly about the most important machine parameters, aided by new systems which send a report to the control point in advance of any malfunction.

The technology in these 'intelligent' machines is already well advanced in many areas. Basically such machines are capable of independently requesting maintenance work based on measurable parameters. Impending malfunctions and the downtimes associated with these are therefore avoided. This is largely the case, for example, with regular maintenance operations such as oil changes. Now efforts are concentrating on expanding the condition reports, linking these up together to the extent that the machines are in a position to identify a wider range of possible defects in advance and to report them to the operator. This reduces not only possible downtimes, but also consumption of anti-wear material. Visitors to bauma in Munich will be able to gain a full picture of the current state of technology in this area.

Further information:

www.bauma.de

bauma

The world's biggest international trade fair for machinery for the building and construction, building-materials and mining industries takes place at the New Munich Trade Fair Centre from 23 to 29 April 2007. This event, organised by Messe München GmbH, will take up over 540,000 m² of indoor and outdoor exhibition space. The last bauma in 2004 attracted 2,801 exhibitors from 47 countries, all making full use of the fair as a platform for communication, product presentation and marketing. 50% of the exhibitors were from countries outside Germany. 416,000 trade visitors came to bauma in Munich in 2004, 29% of them from abroad. The number of exhibitors and the number of global brands among them is evidence of bauma's central significance as an international forum for the sector. 93% of the exhibitors at bauma 2004 reported contacts with international trade visitors at their stand.

Messe München International (MMI)

Messe München International (MMI) is one of the world's leading trade-fair organisations. It organises around 40 trade fairs for capital and consumer goods, and new technology. Over 30,000 exhibitors from more than 100 countries, and over two million visitors from more than 200 countries take part each year in the trade fairs in Munich. In addition, MMI organises

trade fairs in Asia, Russia, the Middle East and in South America. With four subsidiaries in Europe and Asia and 66 foreign representatives covering 89 countries, MMI has a truly global network.

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