ABB: A leader in the supply of mine hoist systems

ABB's first electrical motor for a mine hoist was commissioned in 1891, and today, 130 years later, the company is the market leader in the segment, with more than 1,000 solutions worldwide, including frictions, drum hoists, shaft equipment, and electrical drive and control systems.

ABB is the sole global manufacturer and supplier of complete mine hoist systems that combine both mechanical and electrical components, meaning mining companies benefit from a single source of supply, including servicing and spare parts. ABB mine hoist solutions offer low life cycle cost, high reliability and system availability, and short project execution times.

Taking safety to the next level

The ABB Ability™ Safety Plus for hoists portfolio also provides the first fully SIL-certified mine hoist solutions, enabling the highest level of safety on the market (IEC 62061) and customers can rest easy knowing that every hoist is backed by long-term service and support of all mechanical and electrical systems.

Mechanical and electrical powertrain portfolio

ABB's extensive range of mechanical mine hoist solutions includes double and single drum hoists, Blair multi-rope hoists and friction hoists, as well as complete brake systems. The company's portfolio of electrical powertrain systems encompasses hoist motors (AC, DC, direct and gear coupled), AC and DC hoist drives, drive transformers, switchgear and motor control centers.

Innovative, safe and reliable solutions

ABB has achieved its market-leading position in the mine hoist systems segment by listening closely to its customers and then employing the best people, engineering expertise and more than 130 years of knowledge to create innovative solutions that fulfill key industry demands such as maximum hoist availability, better hoist safety and reliability and flexible control or local operation.

ABB Ability™ NGX Hoist Control

ABB maintains its competitive advantage by constantly innovating and pushing the boundaries of what is possible in the mine hoist space. The company's latest innovation is ABB Ability™ NGX Hoist Control, a new standardized hoist control system for use by mining companies worldwide.

NGX Hoist Control is flexible, reliable and easy to use, offering higher levels of performance and safety. It is a scalable solution that can seamlessly adapt to any hoist and can be easily integrated with other new or existing digital solutions in both greenfield projects and upgrades, making it ideal for smaller companies. The system helps to reduce costs and improve efficiencies through standardization of control systems making it ideal for both small and large companies.

- Safety, ABB Ability™ NGX Hoist Control includes the latest and most comprehensive safety features in a non-SIL (functional safety) environment.
- Reliability: ABB hoist control systems are world-renowned as reliable and trouble-free. More protections on the NGX system to reduced downtime and maintenance. A global platform that gives you access to ABB expert technical support, from anywhere.
- User Experience: NGX provides mine hoist operators with the most modern and intuitive hoist operator control station available (NXG-H50). NGX operator control station was designed using the latest techniques in ergonomics and human factors engineering.
- Flexible and Scalable Solution: NGX can be used on any mine hoist type: application, anywhere. Compatible and easily integrated, large global customers that have mine hoists around the world will benefit from having a common platform for all globally located mine hoists. It is also easy to upgrade from a non-ABB control system.
- Optimization: You can optimize your OPEX by implementing the same control system across your plants. The platform has standardized building blocks/features, easier to monitor and maintain.

Optional features include:

- Demand-driven production – matched to upstream and downstream flows.
- Automatic rope oscillation control – rope whip in catenary.
- Cage bounce elimination – essential for deep hoists where conveyance bounce on emergency trips.

ABB: your digital partner

ABB accompanies companies of all sizes around the world on their digital transformation journey.

NGX Hoist Control is compatible with ABB Ability™ Performance Optimization, part of ABB's portfolio of advanced digital services. Performance Optimization tracks the status of the hoist 24/7, and improves uptime, availability, performance and productivity using data on key performance indicators. The system also features intuitive operation via a human-machines interface system.

NGX Hoist Control is the latest addition to ABB Ability™ MineOptimize portfolio of digital automation and electrification solutions, which connects, monitors and controls ABB solutions in order to optimize operations and energy usage in real time, paving the way for the fully integrated, mobile, collaborative, autonomous and emissions-free mines of the future.

ABB does not compromise on health and safety of people working in the mines and is committed to create mining environments that are safe for workers.

They start by listening and understanding the needs of customers and users, to develop reliable mining equipment that make mines safer. They create autonomous and remote solutions, enabling operators to remotely monitor their operations and detect safety issues far from hazardous areas.

ABB's digitally-enabled applications are designed to provide clear information and actionable work instructions.

See NGX Hoist Control in action at Euro Mine Expo 2022

The team from ABB Process Industries invites delegates to witness ABB Ability™ NGX Hoist Control in action at Booth 188 in the Zink Hall at Euro Mine Expo 2022. The trade fair and conference is being held in Skellefteå Kraft Arena, Skellefteå, Sweden, from Tuesday June 14 to Thursday June 16.

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JUNE 2022 • E&MJ