

Press release

Liebherr Mining details latest technology updates at Bauma 2022

- The T 274 mining truck exhibit at Bauma showcases the Liebherr Trolley Assist System, the latest Assistance Systems, Crusher Guidance and Trolley Guidance, and the Liebherr Autonomy Kit
- Liebherr Mining’s roadmap to zero emission mining equipment continues to progress, with the newly released cable reeler system for excavators along with new deployments and partnerships
- The latest updates to the Troubleshoot Advisor and Content Delivery Portal within the Liebherr Mining Digital Services suite provide enhanced user experience

At Bauma 2022, held in Munich Germany from October 24 – 30 2022, Liebherr Mining has detailed the latest updates to its mining portfolios. This builds on the announcements made at MINExpo in Las Vegas in September 2021, which launched the Mining Technology Product Portfolio and Zero Emission Mining Program.

Munich (Germany), 24 October 2022 – Liebherr Mining has taken advantage of Bauma 2022 to provide details into its latest technology updates. These updates include the latest news from the Zero Emission Mining Program, upgrades to the Digital Services maintenance product line, and products for haul trucks including the Trolley Assist System showcased on the T 274 at the show, and new advanced Assistance Systems and Autonomous product offerings.

T 274 illuminates Bauma showcase with Trolley Assist System display

The T 274, a class-leading 305 t / 336 tons haul truck has taken centre stage at the Liebherr Mining exhibit at Bauma, with an interactive Trolley Assist System display.

Designed and adapted from years of experience in mining truck development, the T 274 is a 305 tonne machine that provides fast cycle times, higher production rates, low fuel consumption, and a low cost per tonne. A wide range of options are available for the T 274 and the entire Liebherr haul truck product line, including the Trolley Assist System.

Showcased on the T 274 at Bauma, the Liebherr Trolley Assist System uses an overhead pantograph to connect the electric-drive system to a mine site’s electrical network, powered by the customer’s energy source of choice. The Trolley Assist System offers increased truck fleet productivity, and potential for

reduction in fleet size while maintaining yearly production, when compared with standard trucks. The potential for significant reduction of diesel fuel consumption and carbon footprint by decreasing the truck fleet's CO2 emissions, demonstrates the Trolley Assist System as an effective first step on the road to zero emission mine sites of the future.

Liebherr's trolley footprint continues to expand

Liebherr's success with trolley solutions worldwide continues to grow. The existing global fleet of Liebherr trucks with the Trolley Assist System consists of 50 360 t / 397 ton T 284 trucks across two sites, and seven 100 t / 110 ton T 236 trucks in Austria. The new trolley technology fitted on the Austrian T 236 trucks has been successfully operating for one year. Liebherr Mining is also anticipating adding a new site with Liebherr trucks and the Trolley Assist System in South America in 2023.

Cable management solution for electric excavator introduced

Liebherr has over 30 years of experience with electric excavator technology, and has recently introduced the Liebherr cable reeler option for the entire range of mining excavators from R 9150 to R 9800 in both face shovel and backhoe configurations. The cable reeler enables management of the excavator's electric cable during operation and provides better mobility of the machine, optimises safety, and reduces the number of crew required for cable handling.

The cable reeler is an automated, hydraulically driven solution, with a reach of up to 300m. The heavy-duty installation into the undercarriage structure is designed in a way that the excavator ground clearance is not reduced.

Liebherr autonomy set for deployment

Liebherr Mining is currently setting the foundation for the first deployment of its autonomous haulage solution, which is scheduled to commence in Australia in 2023. Liebherr's autonomous haulage solution delivers the next generation of on-board intelligence, with reduced dependency on site infrastructure and centralised supervisory systems. Together with vehicle-to-vehicle technologies, Liebherr's smart autonomous solutions provide on-board obstacle avoidance and load area path planning capabilities for optimisation of traffic flow. Liebherr's solutions offer a high level of safety integrity with the introduction of an 8-layer safety concept in combination with the latest on-board perception technologies for long range, high resolution and 360-degree coverage. This makes the Liebherr system a unique offer to the market with important operational advantages when compared to other systems currently operated or offered.

The deployment in Australia will include both Liebherr's Autonomy Ready Kit, and the Liebherr Autonomy Kit, which will integrate with the customer's preferred traffic and fleet management systems. This follows Liebherr's philosophy of open and interoperable mining architecture, allowing customer's the freedom of choice in selection of best-in-class base machines, automation, traffic management, and fleet management systems. The Autonomy Ready Kit is available for purchase for the Liebherr mining truck model T 264, T 274 and T 284.

Liebherr's partnership with Fortescue

As a key partnership within the Zero Emission Mining Program, Liebherr has recently announced its partnership with Fortescue Metals Group (FMG) for the development and supply of mining haul trucks integrating zero emission power system technologies being developed by Fortescue Future Industries (FFI) and Williams Advanced Engineering (WAE). The phased supply of haul trucks is anticipated to commence following a two-year joint development period enabling the development and integration of Fortescue's proprietary-owned battery electric and fuel cell electric power system, into Liebherr's zero emission drive optimised and updated base truck. To achieve the target, Liebherr will use its vast OEM expertise in the design and manufacturing of machinery and machinery core technology such as electric drive systems, engines, hydraulics, and electronics, to engineer, manufacture, and supply the new mining haul trucks in accordance with Fortescue's delivery requirements.

Advanced Assistance Systems provide semi-autonomous machine guidance

Liebherr Mining has expanded its Assistance Systems product range for mining trucks with the Trolley Guidance System and Crusher Guidance System. Available on the T 264, T 274, and T 284 mining trucks and able to be retrofitted to existing fleet, the mining truck Assistance Systems improve operator efficiency, reduce fuel consumption, increase operational safety, and reduce the risks of damage to the machine. Both Assistance Systems have been successfully validated in a mine this year.

The new products Trolley Guidance and Crusher Guidance provide semi-autonomous steering of the truck to maintain a consistent path while under the trolley line and while backing into a crusher, respectively. The Trolley Guidance also automatically raises the pantograph as it enters and leaves the trolley line.

Enhanced maintenance support with updated Digital Services

Liebherr Mining is continuing to establish its suite of data-driven Digital Services aimed to further support customers with equipment performance and maintenance.

After several years of continuous improvement, a new version of the Liebherr Troubleshoot Advisor (TSA) is now available. The TSA is an intuitive platform that provides access to detailed troubleshooting instructions for common technical problems, enabling customer's onsite technicians to troubleshoot their equipment as a Liebherr expert would.

The new TSA portal has integrated several updates to improve the user experience, including a new easy-to-follow interface, a new offline mobile application allowing access without a network connection, and ease of license management through the customer portal MyLiebherr.

The TSA is also intrinsically linked to the new Content Delivery Portal (CDP), with the ability to launch guides from the Troubleshoot Advisor directly through the CDP. The Liebherr Content Delivery Portal is a user-centric, intelligent search database comprising all Liebherr Mining technical documentation, from operating manuals to assembly instructions, allowing users to locate relevant information quickly and precisely.

By using both the CDP and TSA, as well as the other Liebherr Mining Digital Services, maintenance teams can accelerate the execution of jobs to minimise downtime of mining equipment.

About the Liebherr Group

The Liebherr Group is a family-run technology company with a highly diversified product portfolio. The company is one of the largest construction equipment manufacturers in the world. It also provides high-quality and user-oriented products and services in a wide range of other areas. The Liebherr Group includes over 140 companies across all continents. In 2021, it employed more than 49,000 staff and achieved combined revenues of over 11.6 billion euros. Liebherr was founded in Kirchdorf an der Iller in Southern Germany in 1949. Since then, the employees have been pursuing the goal of achieving continuous technological innovation, and bringing industry-leading solutions to its customers.

Images



liebherr-T274-mining-truck.jpg

The Liebherr T 274 305 tonne mining truck.



liebherr-cable-reel.jpg

The Liebherr cable reeler can be used for electric excavators from R 9150 to R 9800.



Liebherr-mining-digital-services.jpg

The Troubleshoot Advisor application has recently been upgraded, improving the user experience.

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