

Press release

Liebherr-Components at MINExpo 2024: excellence at the heart of mining machines

- Liebherr-Components showcases its innovative technologies at MINExpo 2024, highlighting the reliable components at the heart of powerful mining machines
- Decarbonization solutions: Liebherr develops alternative powertrains and offers remanufacturing services
- Liebherr provides a comprehensive service by offering exchange components for mining aftermarket

At MINExpo 2024, Liebherr's components product segment presents innovative technologies that are at the core of every powerful mining machine. Liebherr's commitment to excellence and decarbonization can be seen in every product or service on display – be it a hydrogen engine, a travel or a wheel drive, a CFRP hybrid hydraulic cylinder, an advanced slewing bearing with bearing clearance monitoring or the Reman program. Further, Liebherr offers exchange components for mining aftermarket, providing customers with a comprehensive service they can profit from.

Las Vegas (USA), 24 September 2024 - At the core of every powerful mining machine lies the enduring strength of numerous components. These vital elements do not only ensure the reliability of these machines, but also provide remarkable performance under the toughest conditions. With this in mind, Liebherr-Components presents its cutting-edge technologies at MINExpo 2024. Whether it is a hydrogen engine, a travel or a wheel drive, a CFRP hybrid hydraulic cylinder, advanced slewing bearing with bearing clearance monitoring or the Reman program – Liebherr's commitment to excellence and decarbonization can be seen in every product or service on display at the exhibition. Further, Liebherr offers exchange components for mining aftermarket, providing customers with a comprehensive service they can profit from.

Liebherr as a component manufacturer

When manufacturing mining machines, Liebherr's priority is to design matching components to withstand the highest loads and most challenging conditions in mines over a long operation time. Liebherr's vast expertise in the development and manufacturing of powertrain technology brings clear advantages – from reliable components at the heart of reliable machines to continuous powertrain development based on the results of field tests.

Recently, Liebherr has begun to integrate its own series of engines into its excavators and trucks in new markets all over the world at first fit or as repowering projects.

‘As a part of its international strategy, Liebherr equips its machine fleets with its own high-performance components. In this way, Liebherr guarantees that the entire machine meets the most stringent standards in terms of safety, performance and reliability,’ says Steffen Apel, key account manager, combustion engines for the mining industry, Liebherr-Components AG.

To master one of the significant challenges of this generation – the reduction of global greenhouse gases – Liebherr is working on alternative powertrain concepts. For example, Liebherr’s components product segment is developing ammonia internal combustion engine technology. The latter can be used in mine operations, where electrification is either not possible or not economical. Ammonia offers several advantages such as high energy density, ease of transportation and excellent storage capacity.

Liebherr also transforms used components into new parts in accordance with industry standards through its Reman program, contributing to the preservation of important resources. ‘Up to 75 % of raw materials and energy can be saved through the remanufacturing of used components. The carbon footprint can also be reduced by over 50 %,’ adds Jens-Christian Wannewetsch, managing director, Liebherr-Ettlingen GmbH. Moreover, the remanufacturing of used parts cuts material costs, reduces downtime and increases the availability of equipment. The Liebherr Group is currently remanufacturing used components at around 15 locations with a total of 550 employees worldwide. Each year, approximately 7,500 components and countless individual parts are given a second life. Most of these locations are operated by Liebherr’s mining product segment, with a smaller portion belonging to the components product segment. A regular exchange of experience between these product segments ensures a continuous process improvement.

To increase efficiency, Liebherr uses both lightweight design and fibre composite technology (CFRP) for the manufacturing of a wide range of products. ‘Our manufacturing approach brings with it the significant advantage of component properties comparable or superior to those of steel, alongside weight reduction. When applied in mining, the latter allows the use of larger attachments for mining excavators, which increases digging performance, operational efficiency and reduces emissions as a side benefit,’ says Dominic Gottwald, team leader composites technology, Liebherr-Components Kirchdorf GmbH. ‘Liebherr is well-known for its quality management processes, which also apply to CFRP hybrid hydraulic cylinders.’

Exchange components for mining aftermarket

For non-Liebherr mining applications, Liebherr offers travel and wheel drives, along with slewing bearings and hydraulic cylinders. ‘The product portfolio has grown significantly in recent years, particularly in the field of drive technology, offering travel drives for various Hitachi excavator models – from EX1900 to EX5600 – as well as wheel drives for Caterpillar’s 777 and 793 mining trucks,’ explains Andreas Stark, senior global business development manager aftermarket, Liebherr-Components GmbH. ‘The decisive benefits of Liebherr’s exchange components are their availability and compatibility with a range of OEM [original equipment manufacturer] equipment. Liebherr-made components have undergone technical optimisation, where possible, to exceed the service life of the OEM components and to offer a better total cost of ownership to the customer.’

As an OEM, Liebherr’s hydraulic cylinders do not only meet the highest standards in terms of performance and reliability, but also feature advanced sealing concepts, as well as forged and double

chrome-plated piston rods. This ensures the best possible protection against corrosion, even in the harshest environments.

Liebherr's slewing bearings are characterized by 100 % interchangeability in fit, form and function. Their design has been improved for aftermarket to increase performance and uptime. The bearings can also be enhanced by an innovative feature: smart bearing clearance monitoring. The system can measure bearing wear in axial and radial directions, as well as tilting clearance. Such a digital system ensures flexibility in measurement, reduces downtime, lowers maintenance costs and, above all, increases personnel safety. For easy interchangeability of the slewing bearings, suitable bolting kits are available for various makes and models.

Liebherr's fast procurement channels for all types of components, including exchange components, is also important for customers. One of Liebherr's core values is to ensure that every product or service a customer receives is of the highest quality possible. So Liebherr's components product segment is a one-stop-shop: from the analysis of the customer's application through to design, development, production and delivery – everything combined under one roof.

About the Liebherr-Component Technologies AG

In this segment, the Liebherr Group specialises in the development, design, manufacturing of high-performance components in the fields of mechanical, hydraulic and electric drive and control technology. Liebherr-Component Technologies AG, based in Bulle (Switzerland), coordinates all activities in the component product segment.

The extensive product range includes combustion engines, injection systems, engine control units, axial piston pumps and motors, hydraulic cylinders, slewing bearings, gearboxes and winches, switchgear, electronic and power electronics components and software. The high-quality components are used in cranes and earthmoving machinery, in the mining industry, maritime applications, wind turbines, automotive engineering or in aviation and transport technology. Synergy effects with other product segments of the Liebherr Group are used to drive continuous technological development.

About the Liebherr Group – 75 years of moving forward

The Liebherr Group is a family-run technology company with a highly diversified product programme. The company is one of the largest construction equipment manufacturers in the world. It also provides high-quality, user-oriented products and services in a wide range of other areas. The Liebherr Group includes over 150 companies across all continents. In 2023, it employed more than 50,000 staff and achieved combined revenues of over 14 billion euros. Liebherr was founded by Hans Liebherr in 1949 in the southern German town of Kirchdorf an der Iller. Since then, the employees have been pursuing the goal of achieving continuous technological innovation and bringing industry-leading solutions to its customers. Under the slogan '75 years of moving forward', the Group celebrates its 75th anniversary in 2024.

Image



liebherr-components-excellence-in-mining.jpg
Liebherr-Components excel in mining applications

Contact

Alexandra Nolde
Senior Communication & Media Specialist
Phone: +41 56 296 4326
E-mail: alexandra.nolde@liebherr.com

Published by

Liebherr-Components AG
Nussbaumen/ Switzerland
www.liebherr.com