

Press release

Largest order in the company's history: 475 Liebherr machines to be delivered to Fortescue

- Liebherr and Fortescue – the global green technology, energy and metals company – signed a contract for an extended partnership at the most important trade show for mining, MINExpo, in Las Vegas, USA
- Pioneering for the mining industry: the T 264 battery-electric truck, powered by a Fortescue Zero battery power system, will be one of the first zero emission haulage solutions for mining in operation globally
- The partnership includes jointly developed technology that paves the way for decarbonised mining and features a total of 475 zero emission Liebherr machines that will be used in Fortescue's mines in Australia
- This partnership underscores Liebherr's commitment to driving forward the decarbonisation and autonomisation of heavy-duty machinery
- The agreement between Liebherr and Fortescue will help deliver the decarbonisation objectives of both companies

The contract for the joint development of zero emission and autonomous solutions and the supply of 475 Liebherr machines was signed during the MINExpo exhibition that took place in September in Las Vegas, USA. The deal between Fortescue and Liebherr amounts to the largest order volume in The Liebherr Group's entire 75-year history as a company. The order, worth around €2.5 billion, comprises 360 battery-powered and autonomous mining trucks, 55 electric excavators and 60 battery-powered dozers – all of which Fortescue will use in its mines in Australia. All of these machines, and a large number of the key components and machine electronics installed in them, are developed, produced and will later be serviced at six Group sites in Germany, France, Austria, the USA and Australia.

Nussbaumen, Switzerland, 5 October 2024 – The deal will result in one of the world's largest zero emission mining fleets. It was therefore a great moment for the Liebherr Group when Dr Willi Liebherr, member of the Board of Directors of Liebherr-International AG, and Dr Andrew Forrest, executive chairman of Fortescue, signed the contract for the expanded partnership between their two companies in Las Vegas. Liebherr and Fortescue not only signed a contract for machine deliveries totalling around €2.5 billion, but also for a significant intensification of their strategic cooperation, which has developed from a customer relationship spanning several years.

Pioneering for the mining industry: Liebherr and Fortescue as one of the world's first providers of zero emission autonomous mining machines

As early as 2022, Dr Willi Liebherr and Dr Andrew Forrest, whose company is a long-standing customer of Liebherr's Mining segment, recognised the great potential in combining the expertise of their companies. This joint endeavour resulted in a partnership that combines Liebherr's expertise in the development and manufacture of high-quality machines with Fortescue's technological expertise in the field of zero emission power systems. Since then, Liebherr and Fortescue have been working together to produce zero emission machinery that meets the performance standards customers expect of heavy-duty equipment. Pursuing this will also enable the two partners to achieve their own ambitious decarbonisation targets.

The collaboration has so far focused primarily on the integration of Fortescue's zero emission powertrain technology into the T 264 and on the initial supply of 120 units of these trucks. However, the signing of the contract at MINExpo formalised the expansion of the partnership beyond this. The two companies are also working together to develop a zero emission dozer and autonomous solutions for mining trucks. Liebherr and Fortescue have also successfully converted an R 9400 excavator from a diesel to an electric powertrain. Together, Liebherr and Fortescue will become among the first to provide a large-scale autonomous, zero emission mining fleet.

One of the biggest milestones in the Liebherr–Fortescue partnership was presented at MINExpo: the autonomous battery-electric T 264 mining truck. The machine will be equipped with a battery-electric power system developed by Fortescue Zero – Fortescue's technology arm – and an Autonomous Haulage Solution jointly developed by the two companies. Fortescue has developed the stationary fast charging solution to support the autonomous battery-electric truck. Equipped with robotic connection options, the charger can provide up to 6 MW of power and charge the current battery-electric T 264 in 30 minutes. The Autonomous Haulage Solution includes an Energy Management System that coordinates the static recharge assignments for the trucks and ensures the charger is fully utilised without causing queuing on site.

Of the 475 machines that Fortescue will purchase under the contract, a total of 360 will be autonomous battery-electric T 264 mining trucks – three times the 120 planned at the start of the partnership in 2022. A further 115 machines are added to this: 55 R 9400 E electric excavators and 60 PR 776 dozers. These machines also include a large number of hydraulic and mechanical components and electronic systems, which the Group develops and manufactures in-house, making the order one of the most important and largest for Liebherr since the company was founded in 1949.

Manufacturing expertise and service down to the last detail: Liebherr sites around the world contribute significantly to the project

Liebherr has been one of the world's major manufacturers of construction and mining machinery for many years. The 475 machines that Liebherr will supply to Fortescue as part of the major order will be developed and produced with comprehensive expertise from various sites throughout the Group. This includes a large number of key components for the manufacture and ongoing operation of the machines,

as well as the built-in electronics. As well as this, Liebherr will provide extensive after-sales and service support for the fleet of machines in operation.

In addition to the two plants in Colmar, France, and Newport News in Virginia, USA – where Liebherr develops and produces its mining excavators and mining trucks respectively – other plants within the Group are also significantly involved in the fulfilment of the contract. Mining machines are usually used for a period of ten years or longer before they are replaced. During this period, the machines are sometimes operated for over 7,000 hours per year – around 80 % of the 8,760 hours there are in a year on average. The tough operating conditions in the mining industry – heat, dust and heavy wear – make high demands on the machines, which is why Liebherr relies on in-house production for key components. Liebherr is known for its robust, durable and high-quality machines and components. Nevertheless, some components have to be maintained and sometimes replaced over the long period of use. In addition to the parts needed to manufacture these new machines, there will also be a considerable demand for components for the ongoing use of these machines in the field. The contract with Fortescue will also generate ongoing business in the area of after-sales and services across various product segments of the Group.

For example, Liebherr-Components will supply several thousand components, such as hydraulic cylinders and gearboxes, from its plants in Biberach an der Riss and Kirchdorf an der Iller in southern Germany over the entire service life of the machines. Some electronic components installed in the machines are also manufactured at the plants in Biberach an der Riss and Lindau. This has a clearly discernible positive impact on business activities and therefore on a stable working environment at various Liebherr plants in southern Germany.

The contract with Fortescue also includes dozers, which Liebherr develops and produces in Telfs, in the Tyrol region of Austria as part of its Earthmoving product segment. These are primarily used for the extraction, transport and material handling of a wide variety of materials, such as stone, earth and raw materials, both in the construction industry and in mines. The PR 776 model, 60 of which will go to Fortescue, will, like the mining truck, be equipped with a battery power system from Fortescue Zero for decarbonised operation. This will be another milestone in the development of the Liebherr PR 776, which is already the most efficient dozer in the 70-tonne class.

Comprehensive solution concept for customers: Liebherr's leading work on decarbonisation and machine autonomy

'We wrote a new page of Liebherr history at MINExpo in Las Vegas and are proud to be able to make an important contribution to the decarbonisation, but also to the autonomisation, of heavy-duty machines,' says Dr Jörg Lukowski, executive vice president, sales and marketing, Liebherr-Mining Equipment SAS. 'The technology developed as part of this contract makes us the first provider in the mining market to combine an emission-free drive and a fully autonomous transport solution in a mining truck. This will support our customers on their path to decarbonisation and makes Liebherr a pioneer in the decarbonisation of machines of this size.'

The Group's endeavours to reduce emissions from machines in use, among other things, extend far beyond the mining product segment. A total of 11 of the 13 product segments, with the exception of the

refrigeration and freezing and the hotels segments, are currently focussing on alternative drive technologies. The Group aims to combine maximum efficiency and emission reduction in the use of construction machinery, cranes and mining machines. Electrification is currently playing a key role in many product segments – both in the form of grid-connected machines, such as the R 9400 E mining excavator, 55 of which will be supplied to Fortescue, and in the form of battery-powered products, an important technology that Liebherr is working on with Fortescue, among others.

Although the electric drive systems have proven themselves effective for many applications, Liebherr manufactures an enormous variety of products that are used in many industries and in numerous applications. For this reason, Liebherr is looking at various energy-conversion technologies available today and in the foreseeable future, and as well as the energy sources such as hydrogen and ammonia-based drives, internal combustion engines that can be operated with alternative fuels today, and hybrid drives. The more precise the harmonisation of drive technology, application, and region of use and the infrastructure that can be used there, the greater the contribution to both customer value creation and climate neutrality.

However, Liebherr has been aware for many years that other phases of the product life cycle must also be taken into account for maximum decarbonisation, such as the manufacturing process and the end-of-life management of a product. The Group has been supporting the circular economy for some time now in the form of the Liebherr Remanufacturing Program. As part of this program, customers return their machines' used components, such as engines, hydraulic components and gearboxes, to Liebherr so they can be refurbished to as-new quality and provide the same high levels of performance and reliability as brand-new components. In this way, Liebherr offers customers a sustainable and cost-effective alternative to buying new components. Compared to the production of new components, this program can save up to 75 % raw materials and energy and up to 60 % carbon dioxide.

Liebherr is also a leader in the field of digitalisation and machine autonomy in many industries, with a wide range of digital-based, assistance systems that represent a first step towards semi-autonomous operation. In addition to the Autonomous Haulage Solution that Liebherr and Fortescue are developing together, the Group has various solutions developed in-house that are already used in a large number of its construction and mining machines. Another example of an important digital solution from the Group is the 'Liebherr Remote Control' (LiReCon), which was also presented at MINExpo. Using this remote control system, a machine operator from the trade show in Las Vegas operated a dozer that was physically located in Austria as part of a live demonstration.

All of the Liebherr trucks in Fortescue's 360-strong fleet will ultimately be equipped with a zero emission battery power system developed by Fortescue Zero and the jointly developed Autonomous Haulage Solution – both of which were built to be scalable so they can be retrofitted onto existing Liebherr haul trucks. This means that trucks purchased today are already future proofed for tomorrow. The large scale zero emission mining ecosystem developed by Liebherr and Fortescue – which encompasses all of the companies' joint technology and equipment innovations – will be made available to the rest of the mining industry in the near future.

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.

About Liebherr Mining

Liebherr Mining is one of 13 product segments within the wider Liebherr Group and has been designing, manufacturing, and supporting mining equipment for over 50 years. The company provides a full range of solutions, including high-quality trucks, excavators, and dozers along with technology and service products that help customers get the very best out of their Liebherr machines. Liebherr Mining is also working hard to offer low and zero emission options for all of its equipment to support customers as they embark on their decarbonisation journeys. The company has a global presence with over 4,400 employees in 70 countries around the world.

About Fortescue

Fortescue is the technology, energy and metals group accelerating commercial decarbonisation of industry, rapidly, profitably and globally. Our Metals business comprises our iron ore operations in the Pilbara, Western Australia as well as a pipeline of exploration projects globally in Africa, Latin America and Australia. By 2030, we aim to have our Australian iron ore operations running on green energy, achieving Real Zero Scope 1 and 2 terrestrial emissions. Our Energy business is building a global portfolio of renewable green hydrogen and green ammonia projects and developing green technology solutions. As our business develops globally, our commitment to building thriving communities expands with us. Delivering positive social and economic change through training, employment and business development opportunities is a key focus.

Images



liebherr-fortescue-minexpo-2024-1.jpg

It is the largest single deal in the Liebherr Group's 75-year history: Dr Willi Liebherr and Dr Andrew Forrest sign the contract for an extended partnership between Liebherr and Fortescue.



liebherr-fortescue-minexpo-2024-2.jpg

Liebherr and Fortescue want to become one of the world's first providers of zero emission autonomous mining machines



liebherr-fortescue-minexpo-2024-3.jpg

A pioneering step in the field of heavy-duty machinery: the autonomous battery-electric T 264 mining truck jointly developed by Liebherr and Fortescue was presented for the first time at the largest mining exhibition, MINExpo 2024, in Las Vegas, USA.

Contact

Larissa Lunitz
Head of Public Relations
Phone: + 41 79 645 70 67
Email: larissa.lunitz@liebherr.com

Published by

Liebherr-International AG
General-Guisan-Strasse 6
5415 Nussbaumen, Switzerland
www.liebherr.com