

Press release

S1 Vision: the latest innovation in material haulage

- This innovative haulage solution completely rethinks truck design and focuses solely on the core components needed for moving material
- The S1 Vision is designed to enhance productivity and safety and to reduce greenhouse gas emissions with its battery-electric and autonomous design
- A prototype of the truck will be displayed at the InnovationLab on the Liebherr booth at this year's Bauma exhibition, taking place in Munich, Germany
- Nominated for the Innovation Award in the category "Mechanical Engineering"

The S1 Vision, Liebherr's innovative haulage concept with a design that focuses on the core components necessary for moving material, will be on display at this year's Bauma exhibition at the InnovationLab on the Liebherr booth. In addition, Liebherr's prototype truck is currently one of few products still under consideration for the Innovation Award at bauma, the leading trade fair in the construction industry.

Nussbaumen (Switzerland), 18 February 2025 – Liebherr's concept for a new way of hauling material, the S1 Vision, will be displayed at this year's Bauma exhibition, taking place from 7 to 13 April in Munich, Germany.

Born from a vision to rethink truck design and focus only on core components, the S1 Vision is primarily just a single axle and two tyres. The truck is designed to be scalable, with a payload ranging from 220 kilograms up to 131 tonnes. Because of this payload versatility, the S1 Vision can be adapted for various applications, including earthmoving, farming and agriculture, construction and mining.

This innovation was a collaborative effort between Liebherr Corporate Ventures AG, the Group's business unit for innovation and technology development, and Liebherr Mining Equipment Newport News Co., the Group's mining truck R&D and manufacturing facility. The technology has now become an important innovation beyond the mining division and could prove itself as pioneering for several product segments – Liebherr has therefore decided to continue working on this at Group level in order to optimise synergies across the Group.

Designed for superior manoeuvrability

So that the truck can operate effectively on a single axle, the S1 Vision features a self-levelling system that ensures maximum stability and safety, even on bumpy or rough terrain. This technology significantly reduces the risk of tipping, providing smooth and secure operation across various environments.

The S1 Vision's zero-turn radius means the truck can easily turn on the spot and travel all directions, making it ideal for applications in tight spaces that require precise movements and flexibility.

Technology for today and tomorrow

This haulage concept was designed with cutting-edge technology in mind. The S1 Vision is powered by an electric drive, providing a haulage solution that significantly reduces greenhouse gas (GHG) emissions during operation. It is also equipped with advanced sensors so the truck can navigate independently, avoid obstacles and efficiently manage traffic. Furthermore, if multiple S1 Vision trucks are operating in the one location, the system enables them to connect and share real-time information, which optimises fleet operations, reduces congestion and enhances overall efficiency.

Easy serviceability and transportability

The vehicle's design allows for rapid maintenance, with critical components easily accessible for quick servicing. The fact that wear parts can be replaced efficiently and the electric drive reduces overall maintenance work further minimises downtime and increases operational efficiency.

The customisable design and lightweight structure of this concept means the S1 Vision can be easily transported, lowering logistics costs and GHG emissions – all of which contributes to a sustainable, cost-effective haulage solution suitable for diverse operational environments.

'Hands on the future' in the Liebherr InnovationLab - the S1 comes equipped with some of the most important future-oriented technologies

It is not without reason that Liebherr is presenting itself at the exhibition under the motto 'Hands on the future': on an area spanning roughly 14,000 m², Liebherr is displaying more than 70 future-focused exhibits from 8 out of its 13 product segments. But nowhere else on the booth the motto better comes to light than in Liebherr's own InnovationLab, which the S1 is also a part of. Here Liebherr shows how the Group is tackling tomorrow's challenges already today and which future-orientated technologies play a special role. This also contributes to the idea of the motto that Liebherr is always working hand-in-hand with its customers to offer future-proof solutions, proving themselves as a dependable partner. The S1 combines two of these pioneering technologies, namely machine autonomy and new drive technology that enables zero-emission operations.

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 following its roadmap, which plans 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 the Liebherr Group

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..

Images



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