

Press release

One heart and one soul: Liebherr's electric adjustment system for the wind-assisted drive by AYRO

- Liebherr collaborates with AYRO to equip the first hybrid industrial cargo ship powered by wind
- In the framework of the project, Liebherr produces some key electric adjustment systems for the wind-assisted drive by AYRO
- Liebherr's turnkey plug-and-play solution flexibly adapts to any application

Liebherr is proud to share its collaboration with AYRO, the French industrial start-up that recently successfully equipped the Canopée vessel with four OceanWings®, making it the first hybrid industrial cargo ship powered by wind. With a height of 37 metres and a surface area of 363 m² each, this automated, lowerable and patented vertical wingsail technology will help to reduce CO₂ emissions by cutting fossil fuel consumption. As a part of such a meaningful project, Liebherr's component product segment contributes to a more responsible, efficient and environmental-friendly maritime future.

Nussbaumen (Switzerland), March 18, 2024 – AYRO and Liebherr set new standards for a more responsible, efficient and environmentally friendly maritime future. The French company has set itself the goal to make shipping greener and does so with Liebherr. As a multi-component manufacturer with a vast experience, Liebherr brings the expertise needed for the sophisticated wingsail system with it. AYRO's 37-metre-high wingsails require a special solution due to their size, especially regarding its electrical actuators. And that's where the Liebherr-Components team from Biberach an der Riss (Germany) comes into play.

One heart and one soul: a plug-and-play electric adjustment system for green shipping

The electric adjustment system consists of an adjustment module, control and power electronics. Each adjustment module contains a specific slewing bearing, gearboxes, electric motors and brakes to operate the large wingsails fully automatically.

To do so, AYRO required a sustainable shipping solution. 'That is where Liebherr embarked on a joint development as a component supplier to respond directly to the customer's needs', explains Benjamin Schmid, Head of Sales Maritime Applications at Liebherr-Components AG. To offer a turnkey plug-and-play solution, Liebherr integrated all the relevant elements into the wingsails. 'With the electric adjustment system, therefore, higher wingsails can be turned, whereas the user saves the time-consuming assembly and the adjustment time. On top, we take care of the perfect interaction of the components', says Benjamin Schmid. 'In this way, we are able to fully exploit all the advantages of our products as a system and are proud to have designed such an electric adjustment system together with AYRO. With this development, we set a milestone for green shipping', summarizes Schmid.

About Liebherr-Components 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

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 2022, it employed more than 50,000 staff and achieved combined revenues of over 12.5 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.

About AYRO

AYRO, a leader in maritime transport decarbonation, is a French industrial start-up that designs, manufactures and markets OceanWings®, rigid wings designed for installation on cargo ships and yachts, helping to reduce CO₂ emissions by cutting fossil fuel consumption. For more information, please visit: <https://ayro.fr/> or contact communication@ayro.fr.



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The 121 metres long Canopée vessel with its hybrid propulsion of two diesel engines and four OceanWings®.

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