

Press Release under embargo
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September 28, 2023 – 9.30 am



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PRESS RELEASE

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The first V236-15.0 MW™ powertrain leaves ZF Wind Power Belgium via sustainable water transport

- ZF Wind Power is committed to empowering a sustainable future with its partners and releases the first complete V236-15.0 MW™ powertrain.
- The Vestas powertrain is transported from ZF Wind Power Belgium to its destination in Denmark via water.
- The serial production of this 15 MW powertrain for the offshore market will kick off at ZF Wind Power Lommel in the first quarter of 2024.

Lommel, Belgium. ZF Wind Power and Vestas answer the current and future growth in the offshore market with the V236-15.0 MW™ powertrain. The first prototype left Belgium via sustainable water transport.

The demand for wind energy is increasing worldwide and turbines are getting bigger and more powerful. As a result, the powertrain, the heart of the turbine, is growing too. With the expansion of ZF Wind Power's portfolio from serial gearbox to serial powertrain production, not only will the manufacturing processes be adapted, but the transfer will also be upgraded. The company is investing in sustainable water transport.

The V236-15.0 MW™ powertrain: Challenging the limits

Powered by a swept area of 43,742 m², the Vestas V236-15.0 MW™ turbine moves the boundaries of offshore wind energy production forward. A single turbine can produce up to 80 GWh per year depending on site-specific conditions. This is the equivalent of the yearly use of 20,000 households*.

These models will accelerate the shift from climate-damaging fuels towards clean, renewable types of energy. The 115.5 m-long blades

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enable greater energy production with fewer turbines. This design not only challenges the boundaries of energy production, but also the limits of transport. “Bridges, roundabouts, roadworks, and other possible obstacles on the route make it rather difficult to transport such a heavy and large powertrain via the road. After different studies with multiple experts, including De Vlaamse Waterweg nv (*Flemish Waterways plc*), we decided to transfer this unique design via inland waterways and international sea transport,” explains Felix Henseler, CEO of ZF Wind Power.

Empowering a sustainable future together via water

Transport on waterways is not only independent of roadblocks. As there are hardly any ‘traffic jams’, it is more trustworthy and delivery times are predictable in detail. “Inland waterway transport is a very reliable mode of transportation: you know exactly when your shipment will arrive. Goods are not only transported efficiently, but also in an environmentally friendly manner,” says Chris Danckaerts, CEO of De Vlaamse Waterweg nv.

As of 2024, ZF Wind Power will transfer powertrains per barge from the plant in Lommel to the harbor in Antwerp daily. In Antwerp, a seagoing vessel will be loaded completely with powertrains on their way to their destination. If these were to have been transported one by one on the road, time and costs would be much higher. “Transport by waterways allows us to optimize logistics processes, while contributing to a more sustainable future,” summarizes Felix Henseler.

Not only is the price of transport by shipping vessels competitive, but the social costs are also low. Lower fuel and labor costs ensure that the overall picture is two to three times lower than with road or rail transport. “The combination of inland shipping and shortsea transport offers many advantages and new opportunities for ZF Wind Power. By opting for inland shipping, they can not only save costs, but also achieve a significant CO₂ reduction,” says Chris Danckaerts. Transport

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by these vessels results in substantially fewer CO₂ emissions than the alternatives. By transporting more goods by water, trucks are taken off the road, and less particulate matter is produced. "This transport approach fits perfectly into ZF's ambitious climate strategy," says Dr. Michael Karrer, Head of Sustainability and EHS at ZF. "Our strategy covers not only ZF itself and our production, but also the emissions of the entire value chain. Therefore, we will also reduce emissions from shipping processes."

For ZF Wind Power, water transport opens doors for the future. "With a quay only three kilometers from our plant, there are opportunities to send and receive more and larger products or components from and for our partners. Together, we can empower a sustainable future," concludes Felix Henseler.

****Calculation is based on nameplate capacity divided by energy consumption excluding losses using Eurostat 2021 data***

Captions:

- ZFWindPower_empoweringasustainablefuturetogether_viawater.mp4 – ZF Wind Power empowers a sustainable future together with its partner by replacing classic road transport with more sustainable water transport.
- ZFWindPower_V236-15.0 MWTM.jpg – The Vestas V236-15.0 MWTM turbine moves the boundaries of offshore wind energy production forward. A single turbine can produce up to 80 GWh per year. (©Vestas)
- ZFWindPower-Powertraintransport-1.tif, ZFWindPower-Powertraintransport-2.jpg & ZFWindPower-Powertraintransport-3.jpg – The large design of the powertrain not only challenges the boundaries of energy production, but also the limits of traditional transport.

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- ZFWindPower-LommelMap.tif – With a quay only three kilometers from the plant in Lommel, water transport opens more doors for the future.

ZF Wind Power

ZF Wind Power is a worldwide, leading, technology-driven manufacturer and service partner in the global wind turbine gearbox industry. The company is leading the high-performance onshore segments with products of up to 8000 kNm and was the first to exceed 200 Nm/kg torque density in compact modular platform designs. ZF delivered the world's first offshore 9.5 MW wind turbine gearbox and delivered, in close cooperation with its partner, the first 15 MW complete powertrains for the offshore market. The company has the largest global installed capacity of +8 MW offshore wind turbine gearboxes. Since they entered the wind industry in 1979, ZF Wind Power has delivered more than 80,000 gearboxes, powering as much as 180 GW (mainly high-performance) wind turbines, covering almost 25 percent of the total installed capacity of geared-driven wind turbines worldwide. Together with its partners, the company constantly invests in the wind market to empower a sustainable future **together**.

About ZF

ZF is a global technology company supplying systems for passenger cars, commercial vehicles, and industrial technology that enable the next generation of mobility. ZF allows vehicles to see, think, and act. In the four technology domains of Vehicle Motion Control, Integrated Safety, Automated Driving, and Electric Mobility, ZF offers comprehensive product and software solutions for established vehicle manufacturers and newly emerging transport and mobility service providers. ZF electrifies a wide range of vehicle types. The company and its products contribute to reducing emissions, protecting the climate, and enhancing safe mobility. With some 165,000 employees worldwide, ZF reported sales of €43.8 billion in the 2022 fiscal year. The company operates 168 production locations in 32 countries.

For further press information and photos, please visit www.zf.com.

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