

Press release



17 May 2022

Scandlines turns down diesel engines, turns up wind power and reduces CO₂ emissions once again

With the aim of becoming emission-free by 2040, Scandlines is setting itself higher targets than the Paris Agreement. The next step is the installation of a Norsepower Rotor Sail on the Scandlines hybrid ferry, M/V Berlin.

Since 2013, Scandlines has invested more than EUR 300 million in building and converting conventional ferries into hybrid ferries. In 2020, the ferry operator added environmentally friendly wind propulsion technology to the list of green initiatives by installing a Norsepower Rotor Sail on the hybrid ferry Copenhagen, which operates on the Rostock-Gedser route between Germany and Denmark. With the Rotor Sail from Finnish Norsepower, Scandlines has reduced CO₂ emissions from the hybrid ferry by an average of 4 percent - and on good days with optimal wind conditions by as much as 20 percent.

The Rotor Sail – a 30 m high rotating cylinder - is a modern version of the Flettner rotor and the technology is based on the Magnus effect. When wind meets the spinning Rotor Sail, the airflow accelerates on one side of the Rotor Sail and decelerates on the opposite side. The change in the speed of airflow results in a pressure difference, which creates a lift force that is perpendicular to the wind flow direction.

This lift force allows Scandlines to reduce the use of diesel engines and therefore reduces both the fuel consumption and associated emissions.

The technology has the optimum effect when there is a wind blowing 20 m/s a little abaft abeam and the wind is perpendicular to the sail. The route between Gedser to the north and Rostock to the south is almost perpendicular to the prevailing wind from the west (or a little less frequently east) giving Scandlines favourable conditions for using Rotor Sails on the crossing.

On 16 May 2022, Scandlines installed the Norsepower Rotor Sail on M/V Berlin in the port of Rostock while the ferry was out of service for a few hours.

Michael Guldmann Petersen, COO, Scandlines said: "After positive experiences with the Rotor Sail on the hybrid ferry Copenhagen, Scandlines had prepared the sister ferry Berlin for a Rotor Sail as well. We are happy to see, that the installation was successfully completed and that the ferry went into operation again this morning as planned."

Tuomas Riski, CEO, Norsepower commented on the latest installation: "Scandlines is taking the international GHG emissions reductions targets extremely seriously and is demonstrating a leading approach to investing in innovation to supersede these. Expanding its use of our Rotor Sail technology on its second vessel highlights the viability of wind power, and the significance of the emissions savings which can be achieved."

The Norsepower Rotor Sail solution is fully automated. The system measures the wind speed and direction and based on these measurements calculates whether use of the Rotor Sail will reduce emissions. If so, the Rotor Sail starts automatically. However, for specific port areas which are not suitable for Rotor Sail use, the Rotor Sail solution has settings to ensure the technology will not be activated.





About Scandlines

Scandlines is a modern and innovative ferry operator with a green vision for the future. We have a proud culture based on a strong German-Danish cooperation and a maritime history dating back to 1872.

Scandlines operates two ferry routes with high capacity and frequency. Six of our ferries are hybrid ferries, and one is furthermore fitted with a Rotor Sail – and that contributes to making our ferries greener.

Our core business is to provide an efficient and reliable transport service for both passengers and freight customers. The focus for all our activities – on board the ferries as well as in our BorderShops – is to give our customers a great experience.

With more than 38,000 departures on seven ferries, Scandlines in 2021 transported over 3.6 million passengers, 950,000 cars and around 720,000 freight units on the routes Puttgarden-Rødby and Rostock-Gedser.

Read more about Scandlines at <u>www.scandlines.com</u>. High-resolution **press photos** can be downloaded <u>here</u>.

About Norsepower

Norsepower Oy Ltd is a Finnish clean technology and engineering company pioneering modern auxiliary wind propulsion for the global maritime industry. Norsepower's Rotor Sail Solution is a proven, low-maintenance, easy to use, and reliable fuel saving technology, supporting the decarbonisation of the shipping industry.

Since its establishment in 2012, Norsepower has raised more than €20 million in funding and has now installed Rotor Sails onboard seven vessels, including the latest installation on the Scandlines hybrid ferry, M/V Berlin. Each installation has made significant reductions to fuel costs and emissions, confirmed by independent verifiers such as ABB, NAPA and Lloyd's Register.

For more information on the Norsepower Rotor Sail Solution, please visit <u>www.norsepower.com</u>.

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