

Oceanbird cargo ship relies on wind to transport autos

18 September 2020, by Peter Grad



Credit: Wallenius Marine

The latest trend in cargo shipping has roots in a concept that's been around a while. Say, 7,000 years or so.

The technology is the wind, and the tool is the sailboat. First depicted on an unearthed painted disc in Kuwait believed to have been created around 5,000 BC, sailboats have played a key role in discovery, adventure, conflict and commerce. Would "Pirates of the Caribbean" with Johnny Depp have been as engaging if it took place on a motor boat?

Today, sailboats are used mainly for recreation. Supertankers and huge cargo carriers using cheap, dirty fuel have replaced environmentally friendly wind-powered transport as the main mode of world commerce.

But that transition came with a price. Shipping [fuel emissions](#) contribute up to 30 percent of nitrous oxides released into the atmosphere, 9 percent of sulphur oxides and 3 percent of [carbon dioxide](#).

In response to growing concerns about [global warming](#), the United Nations' International Maritime

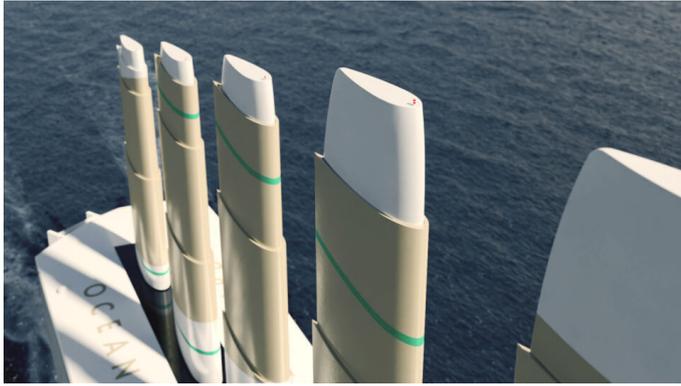
Organization has established a goal of slashing emissions by 40 percent by the end of this decade.

Responding to a new environmental consciousness, companies are studying greener means of transportation. Incorporating newly designed materials and computerized operations, these companies are on the cutting edge of a new age in shipping.

A Swedish company, Wallenius Marine, joined the revolution as it announced last week plans to build a sleek-looking wind-powered car and truck carrier ship that can haul 7,000 vehicles at a time. The ship, named Oceanbird, will sport five 260-foot retractable sails composed of metal and composite materials. The sails can be lowered to 66 feet to pass under bridges or accommodate changing wind conditions. Upon completion, the 650-foot-long, 130-foot-wide ship will hold the distinction of being the world's largest sailing vessel.

The Oceanbird can travel at an average speed of 10 knots. That is a bit slower than conventional vessels, but cruising with the wind means it can eliminate emissions by 90 percent.

"Our vision is to lead the way towards truly sustainable shipping," said Per Tunell, Wallenius Marine's chief operating officer, during a digital press conference last week. "Of course we want others to join us."



emissions from their operation. Oceanbird is matching what many car manufacturers are doing perfectly."

Wallenius, working with the Swedish research institute SSPA and the Royal Institute of Technology in Stockholm on the Oceanbird project, built a small-scale model of the ship and will be testing it in sea waters over the next few months. A completed design should be ready by the end of next year and the first ship should be ready to sail before 2025.

Credit: Wallenius Marine

More information:

www.walleniusmarine.com/blog/s...roducing-oceanbird/

www.oceanbirdwallenius.com/



© 2020 Science X Network

Credit: Wallenius Marine

When asked why the company was willing to share so many details about construction of the ship, Tunell replied, "It is not a competition, but rather a direction we all need to take. By being transparent in the process, we want to inspire others to test the limit to what is possible... We need to make a change and it just can't wait anymore."

Tunell also noted that he has been asked about what some see as a contradiction: an environmentally ambitious effort at transportation that ironically will transport polluting automobiles. Tunell said, "The car industry is going through a major transition as well, and it is moving fast. I would say they are way ahead of the general shipping industry and I am convinced that cars of the future will have significantly less, or even zero

APA citation: Oceanbird cargo ship relies on wind to transport autos (2020, September 18) retrieved 24 November 2020 from <https://techxplore.com/news/2020-09-oceanbird-cargo-ship-autos.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.