

PRESS RELEASE

CO₂ TANKER DEVELOPMENT BY KNUD E. HANSEN

12. APRIL 2023

Reduce Emission

According to the Paris Agreement CO₂ emissions shall be reduced as to limit the global warming to well below 2°C, preferably max 1.5°C. By 2050 the Paris Agreement aims to reduce global warming to 1.5°C resulting in a net-zero carbon emission society. In order for this to be achieved, a medium term political target of significant CO₂ reduction by 2030 is required to reach the 2050 goals.

Within this timeframe major shore-based CO₂ contributors cannot develop and install new processes and facilities. Hence, one solution is to capture the CO₂ to reach the goals.

Major CO₂ contributors in Europe are the energy sector and concrete production, but also the production of methanol and ammonia. Methanol and ammonia however, are considered the future fuels of shipping. This is due to the possibility of producing them as "blue fuels" where, from the outset, CO₂ normally released during production can be captured and stored.

The captured CO₂ will be stored in offshore oil fields either as part of the enhanced oil recovery (EOR) process, which is already taking place on a small scale, or it can be injected into emptied and discontinued fields with storage as the sole purpose.



The value of CO₂ as a "trade product" is based on political taxes and funding. One of the main drivers is the CO₂ tax that controls the value of CO₂.

The CO₂ tax is expected to increase in the years to come; hence, transporting captured CO₂ to storage or EOR sites makes it more attractive today.

In the above-mentioned value chain, transport of CO₂ by ship from captured locations to offshore storage areas, as well as, onshore terminals will be a major industry that requires a new kind of vessel: the dedicated CO₂ carrier.

The CO₂ carrier will be a DP-2 ship with an anchor loading system. It will have tanks for storage and transfer equipment for the off-loading and optional heating of CO₂ to pressure and temperature for the underground injection site.

The ship is equipped with a novel propulsion system that features a twin-skeg design with two contra-rotating propellers providing significant fuel savings, as well as, contributing to the station keeping performance. ■

Twin-skeg design with two contra-rotating propellers providing a significant fuel saving. ►

FOR FURTHER INFORMATION, PLEASE CONTACT

Finn Wollesen, Managing Director

Mobile: +45 4084 2575

E-mail: wollesen@knudehansen.com

ABOUT KNUD E. HANSEN

KNUD E. HANSEN is one of the world's leading independent marine consultancies with more than 85 years of experience in ship & yacht design, with a proven track record in providing unique and cutting-edge solutions to the maritime industry. KNUD E. HANSEN employs about 100 naval architects and Mechanical Engineers in Denmark, Australia, the Faroe Islands, Spain, United Kingdom and USA.

Our approach is based on a combination of continuous innovation, the free exchange of ideas with our clients, and experience derived from many years spent working with every kind of vessel and maritime operator. Using these, we apply fresh thinking to each new project and tailor solutions that are both state-of-the-art and practical to meet the precise needs of each individual customer.

www.knudehansen.com

