

Press release

Maersk Tankers, HHI and DNV cooperate on CO2 ship designs

Maersk Tankers, Hyundai Heavy Industries (HHI) and Det Norske Veritas (DNV) have agreed to collaborate on the design and risk assessment of tankers for shipping CO2.

Maersk Tankers is already in a partnership with Maersk Oil and Finnish utilities Fortum and Teollisuuden Voima (TVO), aimed at developing a joint carbon emissions abatement project in the area of Carbon Capture and Storage (CCS).

"Shipping CO2 in tanker vessels is a cost effective and flexible way to get CO2 from power plants to offshore storage sites, which makes it a suitable solution for large CO2 emission sources such as coal-fired power plants, especially in the emerging phase of CCS." says Anders Schulze, Head of CO2 Shipping in Maersk Tankers.

Maersk Tankers and HHI already have the initial blueprints to build tanker vessels for the transport of CO2 from emission sources to storage sites. The vessels will be semi-pressurised and semi-refrigerated, keeping the CO2 liquid. HHI has designed the vessels together with Maersk Tankers, based on years of experience with transportation of liquefied petrochemicals and natural gas, and in accordance with global standards.

"The further development of the CO2 carrier design shall mainly focus on the safety and the Green ship requirements while emphasising the high energy efficiency of the vessel. HHI's technical cooperation with Maersk Tankers and DNV explains well HHI's policy of constant pursuit of new technology and also its dedication to finding solutions to the environmental issues in the shipbuilding segment." says Mr. Jae Keun Ha, Senior Vice President of HHI.

DNV will provide feasibility studies, risk identification in addition to general support for compliance with applicable class Rules and the current Gas Carrier Code as well as its latest developments specifying CO2 in more detail. These tasks will also include evaluations and support to ensure that the vessel is fit for purpose and fits well into the specific CCS chain.

"The overall technical features of these CO2 carriers have similarities with LPG carriers and offshore shuttle tankers. Many of the applicable safety standards to be applied are therefore basically well known. Studies will, however, have to be carried out to ensure that all features and specialities have been adequately addressed and that the vessels' interface with the rest of the CCS chain is in harmony with the intentions." says Jan Koren, DNV's Segment Director Tankers.

For more information please contact:

Anders Bradt Schulze, Head of CO2 Shipping, Maersk Tankers, +45 33634943
Jae Keun Ha, Senior Vice President, Hyundai Heavy Industries, +82 522020223
Jan Koren, Segment Director Tankers, Det Norske Veritas, +47 67578799

Background:

The A.P. Moller - Maersk Group is a worldwide conglomerate. We operate in some 130 countries and have a workforce of some 115,000 employees. In addition to owning one of the world's largest shipping companies, we are involved in a wide range of activities in the energy, logistics, retail and manufacturing industries. More detailed information about all our business areas is available here. For further information: www.maersk.com

Maersk Tankers is part of the A.P. Moller – Maersk Group and operates one of the largest, most modern and diversified independent tanker fleets in the world, with approximately 300 vessels. Our fleet is exclusively double hulled - all meeting the latest industry standards and requirements. We focus on safety, the environment and cost efficiency. Maersk Maritime Technology (MMT) is on behalf of Maersk Tankers responsible for the technical part of the project. Maersk Maritime Technology is part of the A.P. Moller – Maersk Group and is a specialised ship technology knowledge and competence centre within the A. P. Moller - Maersk group. MMT provides technical consultancy and performance management to more than 350 ships in operation and drives innovation, green recycling, ship repair and newbuilding projects.

Hyundai Heavy Industries was founded by the late Chung Ju-yung on March 23, 1972 and wrote the first chapter of its shipbuilding history in June, 1974, by completing construction of the world's largest shipyard and two 260,000-dwt VLCCs all at the same time. A decade after its first delivery, the Hyundai Shipyard topped 10 million deadweight tons in aggregate ship production, and has maintained the leading position in the world shipbuilding market ever since. Hyundai Heavy Industries delivered their first tanker to Maersk in 1989. To date, Maersk has placed an order of 80 vessels with HHI, of which 20 vessels are under construction.

Hyundai Shipyard's success has allowed it to expand into other heavy industry areas, ultimately leading to the formation of Hyundai Heavy Industries, an integrated heavy industry company.

HHI has a global business network in each of its six business divisions: Shipbuilding, Offshore & Engineering, Industrial Plant & Engineering, Engine & Machinery, Electro Electric Systems, and Construction Equipment.

Det Norske Veritas is an independent foundation with the purpose of safeguarding life, property, and the environment. Since 1864, DNV's core competence has been to identify, assess, and advise on risk management and DNV is the leading classification society for LPG carriers. DNV has for the last decade had a team of people working with the whole carbon capture and storage chain and DNV is classifying 3 CO2 carriers of the world fleet of 4 such vessels. Currently, the DNV classed fleet consists of close to 5600 vessels accumulating around 138 mgt. DNV is headquartered in Oslo with approximately 300 offices in 100 countries.