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ISO 11326

**Ships and marine technology — Test
procedures for liquid hydrogen
storage tank of hydrogen ships**

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Hydrogen offers a reliable way to decarbonise a variety of sectors including the maritime industry, where it has been historically difficult to meaningfully reduce CO₂ emissions despite the commitments by governments and the implementation of regulatory measures.

There are technologies available that enable hydrogen to be produced, stored, transported and used as energy in different ways. Various materials can be produced by hydrogen, including renewable energy, natural gas, coal and oil. Hydrogen can be transported as a gas by pipelines or in liquid form by ship, much like liquid natural gas (LNG), and transformed into electric energy to provide homes or industry with power and also into fuels for cars, trucks, ships and planes.

However, the safe and wide use of hydrogen in marine industry faces several challenges, in particular the absence of applicable international standards on the safety testing of hydrogen systems. All system components should be designed and tested for the safety and reliability in handling liquid hydrogen and thereby the facilitation of decarbonisation with the transition into hydrogen-based clean energy.

In this regard, this document sets up a general test requirement for the liquid hydrogen cargo tank of hydrogen carrier ships. It is expected that useful information can be provided to the marine industry stakeholders including ship owners, classification societies and shipyards. Finally, this document aims to contribute to the growth of relevant industries and benefit all related stakeholders.