

PRESSRELEASE

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HHI, Awards digital twin certification for fuel tank safety

Hyundai Heavy Industries (HHI) has developed a Digital Health Management system (DHM) for safety and operational efficiency of IMO Type-B LNG fuel tanks; and this new and advanced system, an industry first, has achieved Approval in Principal (AIP) of its “Digital Twin READY” Type-B LNG fuel Tanks.

This AIP was achieved through close cooperation with the Liberian Registry (LISCR) as Flag State, and Lloyds Register (LR) as Class Society through JDP. The purpose of this new system is to ensure the structural safety of the Type-B LNG fuel tanks, and to increase the operational efficiency of the ship.

Representing the Liberian Registry, Mr. Thomas Klenum, Senior Vice President of Maritime Operations of the Liberian International Ship and Corporate Registry (LISCR) states: “This AIP was achieved after very close cooperation between HHI, LR and the Liberian Registry. We were honored to be able to participate as flag State, and HHI’s innovative concept with digital twin to support a Digital Health Management system providing fault detection and diagnostics of an LNG Type B tank and allow real-time condition monitoring and assessment of the gas containment tank is a groundbreaking approach to enhance the effectiveness of maintenance and compliance with the classification and statutory requirements. HHI and LR were fantastic partners.”

The AIP was awarded after a technical documentary review of the concept design for the structural DHM of the tanks was performed, and the basis of Verification, Validation, and Investigation Process was established, based on Hyundai Heavy Industries Group's Integrated Smart Ship Solution (ISS) and experience of design cryogenic liquefied gas fuel tanks.

The award of AIP secured the basis for the application of the digital twin system, and presented the possibility of operating and maintaining fuel tanks in an efficient manner, while complying with the requirements of the classification society and flag State. These new developments by applying advanced technologies will lead to efficiencies that will benefit vessels on which they are fitted.

- The Liberian Registry has a long-established track record of combining the highest standards of safety for vessels and crews with the highest levels of responsive and innovative service to owners. Moreover, it has a well-deserved reputation for supporting international legislation designed to maintain and improve the safety and effectiveness of the shipping industry and protection of the marine environment. www.liscr.com

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