



PRESS RELEASE

RINA Grants AIP for Dual Fuel LNG/Hydrogen-Powered Ultramax Bulker Design Developed by Almi Marine Management S.A. and SDARI

Oslo, June 6th, 2025 – RINA, the inspection, certification, ship classification and consulting engineering company, has announced at Nor-Shipping the Approval in Principle (AiP) of a new Ultramax bulker design developed by SDARI (Shanghai Merchant Ship Design & Research Institute) in collaboration with Almi Marine Management S.A.. This milestone was achieved through a Joint Development Project (JDP) between RINA, Almi Marine, and SDARI.

The vessel, based on SDARI's latest-generation *Green Dolphin 64* platform, is a dual-fuel LNG/hydrogen-powered Ultramax bulker, featuring hybrid propulsion and advanced energy efficiency technologies. The AiP recognizes the design's pioneering integration of battery-assisted electric propulsion, wind-assisted systems, and a novel hydrogen-reforming solution that eliminates the challenges of liquid hydrogen storage and supply. To award the AiP RINA verified that the innovative design meets the applicable safety and environmental protection standards.

The new concept redefines propulsion in merchant shipping. Its ultra-modern hull design increases cargo capacity while reducing fuel consumption. Hybrid-electric propulsion enhances adaptability to future innovations, and wind-assisted propulsion contributes further to energy efficiency.

Onboard hydrogen production provides a path to decarbonization without the technical challenges of supply and storage, thereby improving the ship's Carbon Intensity Indicator (CII) and optimizing its pathway to GHG Fuel Intensity (GFI) compliance. It also provides a fuel pathway toward net-zero GHG emissions by 2050 through the progressive transformation of LNG into hydrogen onboard.

This design delivers the energy savings and reduced emissions needed to meet current regulatory requirements, while also offering flexibility to easily integrate future solutions.



RINA, leading certification and engineering company, provides a wide range of services across the Energy, Marine, Infrastructure & Mobility, Certification, Industry and Real Estate sectors. In December 2023, alongside the majority shareholder Registro Italiano Navale, Fondo Italiano d'Investimento SGR entered the shareholding structure guiding a pool of co-investors. With revenues in 2024 of 915 million euros, 6,200 employees and 200 offices in 70 countries worldwide, RINA is a member of key international organizations and an important contributor to the development of new legislative standards. www.rina.org

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