



PRESS RELEASE

RINA awards KOMAC Approval in Principle for LNG-Fuelled H2-Ready LCO₂ Carrier

Busan (Korea), September 11th, 2025 – RINA, the inspection, certification, ship classification and consulting engineering multinational, has awarded Korea Maritime Consultants Co., Ltd. (KOMAC) the Approval in Principle (AiP) for a newly developed 40,000 CBM LNG-fuelled, hydrogen-ready, liquid CO₂ (LCO₂) carrier.

Carbon Capture, Utilization and Storage (CCUS) technologies offer significant potential for decarbonisation and are a key enabler of a more cost-effective and achievable net-zero future. Among the available CO₂ transportation options, shipping emerges as a viable solution to link emission sources with storage sites. Compared to pipelines, it provides shorter lead times, greater flexibility and scalability, streamlined permitting processes, and, in many cases, improved economic efficiency.

LCO₂ shipping is still an emerging market, with only a limited number of vessels in operation or under construction. This makes the development of new ships essential. KOMAC's vessel design captures the growing momentum in the LCO₂ shipping segment, as major international projects begin to set the pace.

This AiP represents a significant advancement in maritime innovation. The future-ready design of the LCO₂ carrier, which features hydrogen as fuel - produced on board and on demand - offers a practical and efficient solution for meeting the IMO 2050 decarbonization targets.

Simone Manca, North Asia Marine Vice President at RINA, said, "This AiP reinforces the close and productive relationship between RINA and KOMAC, highlighting our shared commitment to accelerating the transition toward low and zero-carbon operations. We are proud to support KOMAC in advancing a ship type that will play a pivotal role in the global carbon transport infrastructure. This achievement reflects not only technical excellence but also the collaborative spirit driving sustainable progress in maritime design. Looking ahead, RINA and KOMAC aim to deepen their collaboration, pushing the boundaries of marine engineering and contributing to a cleaner, more sustainable future for global shipping."



KOMAC, the Korea's first and only private organization of naval architects and marine engineers, was founded in 1969. KOMAC has provided full range of professional services in the field of marine engineering including ship design (contract design, basic design, detailed design & production design), new building construction supervision, machinery and equipment procurement services, and technical and management consultancy services to shipbuilders and ship owners in more than 30 countries since its establishment. During last 54 years, KOMAC has designed more than 1,700 different classes and type of vessels and supervised construction of more than 1,400 vessels and provided numerous technical and management consultancy services to the worldwide clients. KOMAC has participated in the planning of nearly every major shipyard projects and yard expansions in Korea including two huge ultra modern shipyards currently owned by Hanhwa Ocean (previously Daewoo) and Samsung Groups. Through this intensive involvement in the local shipbuilding industry, KOMAC has made itself an indispensable partner in the rapidly expanding international maritime industry through relentless efforts and continued nurturing of its expertise both in quality and quantity. www.komac1.com

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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