



NEWS UPDATE

10 March 2021

Approval in Principle for EXMAR ammonia-fuelled gas carrier.

Belgium-based shipping company continues to drive shipping towards zero-carbon with ammonia-fuelled vessel.

Lloyd's Register (LR) has awarded an Approval in Principle to EXMAR for its ammonia (NH₃) fuelled 40,000 m³ Midsize Gas Carrier, a significant milestone for the progression of alternative fuels in shipping. Jiangnan Shipyard was responsible for the ship design while Wärtsilä Gas Solutions provided all input for the ammonia fuel gas supply system.

The Novel Technology Evaluation included an overall examination of fundamental aspects of the design and compliance with LR's Rules and Regulations for the Classification of Ships and for the Carriage of Liquefied Gases in Bulk (for Gas Ships), incorporating the International Code of the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code).

A risk assessment was also conducted, using EXMAR's extensive knowledge and experience of operating Ammonia carriers, to ensure that risks arising from the use of ammonia fuel affecting persons onboard, the structural strength or the integrity of the ship are addressed in accordance with LR's ShipRight Procedure for Risk-Based Designs (RBD). This included a Hazard Identification (HAZID) study which led to the Approval in Principle.

Ed Fort, LR's Global Head of Engineering Systems, said: *"Lloyd's Register is immensely proud to have awarded EXMAR Approval in Principle for its ammonia-fuelled Medium Gas Carrier, demonstrating our commitment to shipping by supporting clients with novel designs. This is a significant milestone in progressing alternative fuels for shipping's transition to zero-carbon, proving the possibility of the use of ammonia as a fuel and how adaptable the fuel is to gas carriers, especially if carrying ammonia as cargo."*

Jens Ismar, Executive Director Shipping at EXMAR, said: *"This approval in principle is an important milestone in the process of developing low CO₂ emission gas carriers. EXMAR continues its steps towards further innovation and decarbonisation by demonstrating the possibility of using ammonia as fuel onboard gas carriers. This follows EXMAR's initiative of introducing LPG as a fuel in 2012 which is being implemented on our world's first order of two dual fuel VLGCs currently under construction."*

“This work, together with EXMAR, Jiangnan and Lloyd’s Register for an Ammonia fuelled MGC, is an important step along the road towards decarbonising the shipping fleet. During the AiP process, we have provided the details for the Ammonia fuel system developed by WGS and also jointly conducted required studies for evaluating the readiness of the systems. We are proud to have played our part in having the AiP granted from Lloyd’s Register,” said Kjell Ove Ulstein (Director Sales and Marketing) at Wärtsilä Gas Solutions.

Hu Keyi, Chief of Corporate Technology of Jiangnan Shipyard, said: *“Jiangnan is continuously making the efforts to find practical solutions for carbon neutral and zero carbon transportation. Jiangnan, as leading gas carrier shipbuilder in China, has cooperated with LR and WGS, to deliver gas fuelled gas carriers to reputable ship owners, like EXMAR. We believe this project of ammonia-fuelled Medium Gas Carrier is not only a low CO₂ emission ship, but it will be also a significant landmark on the roadmap of IMO 2050.”*



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