

GTT and Samsung Heavy Industries receive Approval in Principle from Lloyd's Register for the application of a new design of LNGC featuring GTT's three-tank concept

Paris - May 22nd, 2023. GTT and Samsung Heavy Industries (SHI) have received an Approval in Principle (AiP) from Lloyd's Register for the application of a new design of LNG Carrier (LNGC) featuring GTT's three-tank concept equipped with the [Mark III Flex](#) membrane containment system. This approval is the result of a Joint Development Project (JDP) initiated in 2022, aiming at designing a new generation of LNGC.

The JDP study has demonstrated several benefits of this new design for ship-owners and operators. This three-tank LNGC concept permits an increase in LNG cargo capacity and improves maintenance efficiencies through the suppression of one cofferdam, one pump tower and all associated cryogenic equipment (liquid and gas domes, valves, piping, radars, etc.). At the same time, the improved ratio between the volume of LNG transported and the surface area of the cryogenic liner will make it possible to achieve a boil-off rate as low as 0.080% of tank volume per day with the Mark III Flex technology, compared to 0.085% of the volume per day with the LNGCs currently in operation (for a 174,000 m³ LNGC). In addition, this three-tank LNGC design provides an almost equivalent loading time as a standard four-tank LNGC configuration, thanks to an adapted pump tower. In addition to these benefits, the removal of a cofferdam, pump tower and its associated equipment reduces the weight of the ship.

Philippe Berterottière, Chairman and CEO of GTT, declares: "We are proud to be granted with this approval from Lloyd's Register alongside our long-standing partner Samsung Heavy Industries, for this new three-tank LNG carrier design, which ushers in a new generation of LNG carriers. We are convinced that this development will benefit all players in the maritime sector, by improving the performance of LNG carriers while reducing their carbon footprint."

Youngkyu Ahn, Vice President, Shipbuilding Engineering Division of Samsung Heavy Industries, declares: "Samsung Heavy Industries pursues its innovation efforts, as evidenced by our recent achievement in developing a new three-tank LNGC design in partnership with GTT, which has been approved by Lloyd's Register. This ground-breaking design is expected to reduce greenhouse gas emissions, increase cargo capacity, minimize operating costs and optimize maintenance efficiency, leading to a new era of LNG carriers. This achievement is a remarkable step in the pursuit of even more

innovative vessel designs, and it is with conviction that we pledge to continue to explore and develop innovative designs in the future.”

Young-Doo Kim, North-East Asia TSO Manager at Lloyd’s Register, declares: “*Lloyd’s Register is focused on innovating to improve efficiency and safety and we have reached another important stage in our collaboration with Samsung Heavy Industries and GTT on this key project. We are pleased to award this AiP, which marks an important step forward for LNG owners, who will now have the opportunity to reduce the length of their vessels and maximise cargo carrying potential with this optimised design.*”

About GTT

GTT is a technological expert in containment systems with cryogenic membranes used to transport and store liquefied gases. For over 50 years, GTT has been designing and providing cutting-edge technologies for a better energy performance, which combine operational efficiency and safety, to equip LNG carriers, floating terminals, land storage, and multi-gas carriers. GTT also develops systems dedicated to the use of LNG as fuel, as well as a full range of services, including digital services in the field of Smart Shipping. The Group is also active in hydrogen through its subsidiary Elogen, which designs and assembles electrolyzers notably for the production of green hydrogen.

GTT is listed on Euronext Paris, Compartment A (ISIN FR0011726835 Euronext Paris: GTT) and is notably included in SBF 120, Stoxx Europe 600 and MSCI Small Cap indices.

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