For Immediate Release
7 June 2016

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LNG-Fueled Vessels Go Big with 'Project Forward'

ABS joins forces with industry leaders Arista Shipping, Deltamarin, GTT and Wärtsilä in a JDP to bring LNG-fueled vessels into shipping's mainstream.

(Athens, Greece) ABS, a leading provider of classification services to the global marine and offshore industries, has teamed up with partners Arista Shipping, Deltamarin, GTT and Wärtsilä in the **"Project Forward"** joint development project (JDP) to develop a dry bulk carrier concept that employs LNG as fuel.

The goal is to develop a Kamsarmax bulk carrier design to be the first of this type suitable for worldwide services powered by LNG in compliance with the International Maritime Organization's Energy Efficiency Design Index 2025 standards, NOx Tier III and Marpol Annex VI SOx emission

levels. This landmark design will be the first LNG-fueled cargoship capable of full-range operations.

“The long-term potential for LNG as a marine fuel is tremendous,” says ABS Vice President of Global Gas Solutions Patrick Janssens. “We see the near-term opportunities for larger vessels on fixed and known trade routes, but more opportunities will emerge as concepts mature and bunkering infrastructure expands. Environmental stewardship will continue to be a concern, and owners will be evaluating alternative fuel choices.”

“Project Forward represents a milestone for the shipping industry in bringing to the market a practical, achievable design for what are the workhorses of the shipping fleet,” says Arista Shipping Principal Alexander P. Panagopulos. “Our mission is to develop the next generation of energy efficient and environmental friendly dry bulk cargo ships to be sustainable worldwide beyond 2030. It marks a number of ‘firsts’ and draws together the experience of a team of leaders in their field to make LNG powered shipping a reality on the high seas.”

Technical challenges in developing this design were considerable, as there is a need to carry a large volume of LNG (2,500 cu. m.) – which corresponds to full-range operation and 40 days – in a type of ship where available space is limited and cargo space is at a premium.

ABS will provide Approval in Principle for the concept, which is based on the highly optimized Deltamarin B.Delta 82 design, utilizing a GTT membrane LNG fuel tank. This design also could be applied to other bulk carrier sizes and serve as the basis for an LNG-fueled tanker. The concept features a Wärtsilä four-stroke, medium-speed engine without auxiliary

generators, the first time this configuration has been applied to a vessel of this type, significantly simplifying the vessel's engine room arrangement and contributing to lower capital expenditure.

About ABS

Founded in 1862, ABS is a leading international classification society devoted to promoting the security of life and property and preserving the natural environment through the development and verification of standards for the design, construction and operational maintenance of marine and offshore assets.

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