



## Delivery of "OCEANUS AURORA" (VLGC)

IINO Kaiun Kaisha, Ltd. (IINO) today took delivery of "OCEANUS AURORA," LPG dual-fuel very large gas carrier (VLGC, "the vessel") at Okpo Shipyard of Daewoo Shipbuilding & Marine Engineering Co., Ltd.

IINO's management philosophy is to care for the environment and in our mid-term management plan "Be Unique and Innovative.: The Next Stage -Toward 2030-", we have also set sustainability as one of the priority measures to be strengthened. As a concrete measure to achieve this goal, we are investing in next-generation fuels that reduce greenhouse gas emissions, and this will be our second vessel equipped with a dual-fuel LPG main engine. In addition, It will be our first VLGC that can load ammonia as cargo, which is attracting attention as a clean energy source that does not emit CO<sub>2</sub> when burned.

This environmentally friendly VLGC uses LPG as fuel in addition to conventional fuel oil, which significantly reduces emissions of carbon dioxide (CO<sub>2</sub>), sulfur oxides (SOx), nitrogen oxides (NOx), and particulate matter (PM) compared to conventional fuel oil, is equipped with a shaft generator that uses the rotation of the main propeller shaft to generate power, and instead of using conventional fuel oil to run the generator, the main engine using LPG provides the shipboard power, reducing total emissions. The vessel is also scheduled to be equipped with two 20-meter-high Rotor Sails<sup>TM\*</sup>, a wind propulsion system manufactured by Norsepower, around April-June 2024, and the vessel already has a foundation on deck for the installation of this system.

Based on medium-and long-term contracts with major shippers in Japan and overseas, IINO has been engaged in the transportation of LPG and other liquefied gases for more than half a century since 1963. We will contribute to the realization of a sustainable society by making use of our abundant experience and technical capabilities cultivated through years of operation and management, striving for stable transportation and safe operation, and actively introducing technologies that reduce environmental impact.

For more information about Rotor Sails<sup>TM</sup>, please refer to the following news release.

News Releases: https://contents.xj-

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## < Overview of OCEANUS AURORA>

Cargo tank capacity :  $91,000 \text{ m}^3$ Gross tonnage : 53,531 tonsLength overall : 229.90 mBeam : 36.60 m

Yard : Daewoo Shipbuilding & Marine Engineering Co., Ltd.

Registration : Liberia



## \*Rotor Sails<sup>TM</sup>:

The Norsepower Rotor Sail<sup>TM</sup> is an innovative modernised version of the Flettner rotor. A small amount of electricity is used to spin the cylinder on the deck. The spinning cylinder and the wind create the Magnus effect to generate thrust supporting the main propulsion which reduces fuel consumption, emissions, and fuel costs.

## Contact:

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Inquiry Form: https://www.iino.co.jp/kaiun/english/contact/form.php