December 2, 2025
Idemitsu Tanker Co., Ltd.

Manufacturer of Wind-Assisted Propulsion Systems for Two Newly Built, Environmentally Friendly VLCCs (Very Large Crude Carriers) is Selected

Idemitsu Tanker Co., Ltd. (Head office: Chiyoda-ku, Tokyo; President: Tomio Inagaki; hereinafter referred to as "the ITC") has decided to select Norsepower Oy Ltd. as the manufacturer of the wind-assisted propulsion system "Rotor Sail" to be installed on two environmentally friendly VLCCs*1 scheduled building completion at Japan Marine United Corporation's (JMU) Ariake Shipyard in 2028 and 2029. This will be the world's first*2 installation on VLCCs.

"Rotor Sail" is a system that converts lift generated by the Magnus effect*3 into propulsion by rotating a cylindrical rotor installed on the deck to catch the wind. Its height is 35 meters and diameter is 5 meters, with plans to install two units each on the two vessels to be completed building. The introduction of this system is expected to reduce fuel consumption (estimated daily reduction in heavy fuel oil consumption of approximately 5-25%*4) and suppress emissions of greenhouse gases such as CO_2 by utilizing wind power. Furthermore, it is expected to reduce engine load and improve energy efficiency through wind power utilization.

These vessels are state-of-the-art environmentally compliant VLCCs featuring Norsepower Rotor Sails, fueled by methanol and heavy fuel oil in "dual-fuel combustion", and equipped with shaft generators that produce electricity using the rotation of the main engine propeller shaft during navigation. As the pioneer in large tankers, the ITC will continue to explore sustainable energy transportation while contributing to the realization of a carbon-neutral (CN) and circular society.

Length Overall	Maximum 339.5m
Moulded Breadth	60.0m
Moulded Depth	28.6m
Full Load Draft	21.0m
Deadweight tonnage	Approximate 309,400 tons
Fuel	Methanol and heavy fuel oil
Others	Equipped with large shaft generator Equipped with two wind propulsion auxiliary systems, "Rotor Sail"

Image of environmentally friendly VLCC

[Reference]

NEWS RELEASE by Idemitsu Kosan Co., Ltd.:

Idemitsu Tanker Co., Ltd. Decided to build two environmentally friendly VLCCs (very large crude carriers), as its first case (April 24, 2025)

https://www.idemitsu.com/jp/news/2025/250424.pdf

NEWS RELEASE by Idemitsu Tanker Co., Ltd.:

The newly built environmentally friendly VLCC (Very Large Crude Carrier) has been named "NISSHO MARU." (September 8, 2025)

https://www.idemitsu.com/jp/tanker/topics/2025/250908.pdf

*1 Design concept was finalized on January 26, 2024 by the consortium formed by IINO Kaiun Kaisha, Ltd., Nippon Yusen Kabushiki Kaisha, Nihon Shipyard Co., Ltd., and Idemitsu Tanker Co., Ltd.

Nihon Shipyard Co., Ltd. is a joint venture between Imabari Shipbuilding Co., Ltd. and Japan Marine United Corporation (JMU). These vessels are scheduled to be built at JMU's Ariake Shipyard.

*2 As of October 2025.

*3 This effect means that the lift is generated when wind strikes the cylindrical rotating rotor installed on these vessels, thereby providing propulsion.

*4 Researched by Norsepower Oy Ltd.

～Contact～

Business Strategy Planning Section, Planning & Operations Department,
Idemitsu Tanker Co., Ltd.
URL：https://www.idemitsu.com/jp/contact/group_flow/index.html