

**IINO LINES****NYK**
NIPPON YUSEN KAISHA

January 26, 2024

Japanese Consortium to Develop Design Concepts for Eco-Friendly VLCCs

Idemitsu Tanker Co.,Ltd.

IINO Kaiun Kaisha, Ltd. (IINO Lines)

Nippon Yusen Kabushiki Kaisha (NYK)

Nihon Shipyard Co., Ltd.

Idemitsu Tanker Co.,Ltd., IINO Kaiun Kaisha, Ltd. (IINO Lines), Nippon Yusen Kabushiki Kaisha (NYK), and Nihon Shipyard Co., Ltd. are pleased to announce the establishment of a consortium on January 26, 2024 to conduct joint research and development of design concepts (particulars, machinery, and environmental equipment) for Malacca Max (*) type Very Large Crude Oil Carriers (hereinafter, "VLCCs") with the aim of reducing greenhouse gas emissions.

Background

Decarbonization has become a significant global issue, but a stable supply of crude oil remains essential to the energy needs of Japan, which relies on the Middle East for more than 90% of the nation's crude oil imports. VLCCs transporting crude oil are thus vital to Japan's economy. To minimize greenhouse gas emissions generated during transportation, shipping companies are considering switching from conventional fuels to next-generation fuels and installing environmentally friendly equipment, such as Carbon Capture and Storage Systems (CCS), among other measures.

To address these issues, Idemitsu Tanker Co.,Ltd. initiated the formation of this consortium by the four companies to study optimal solutions beyond the boundaries of each company.

Initiatives

Aiming to reduce greenhouse gas emissions by 40% or more compared to previous levels, the consortium will combine expertise in the four companies' respective fields to verify/select the effectiveness of next-generation fuels and environmentally friendly equipment, as well as create design concepts, with a view to ultimately building and operating VLCCs.

* The largest vessel type capable of passing through the Strait of Malacca, a major shipping route of crude oil between Japan and the Middle East.



Consortium Signing Ceremony

From left, Ryuichi Osonoe, Director of IINO Lines; Takashi Hirose, Director of Nihon Shipyard Co., Ltd.; Ichiro Matsuo, President of Idemitsu Tanker Co.,Ltd.; Hironobu Watanabe, Managing Executive Officer of NYK



Image of Next Generation Eco-Friendly VLCC

Overview of Consortium Members

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< IINO Lines >

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< Nippon Yusen Kabushiki Kaisha (NYK) >

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Representative: President Takaya Soga

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< Nihon Shipyard Co., Ltd. >

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Representative: President Yoshinori Maeta

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Contact Information

Idemitsu Tanker Co.,Ltd.: Business Strategy Planning Sec., Planning & Operations Dept.

(Website: <https://www.idemitsu.com/en/contact/flow/index.html>)

IINO Lines: Oil Tanker Department

(Website: <https://www.iino.co.jp/kaiun/english/contact/form.php>)

NYK Line: Corporate Communication Group, Media Relations Team

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Nihon Shipyard Co., Ltd.: Sales and Marketing Division

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