

19 June, 2024

Mitsui E&S Shipbuilding Co., Ltd.

**Mitsui E&S Shipbuilding, UYENO TRANSTECH and YANMAR POWER TECHNOLOGY
obtain World's first AiP from ClassNK for the design of oil tanker using liquefied hydrogen as a
fuel**

Mitsui E&S Shipbuilding CO., Ltd. (Mitsui E&S Shipbuilding), UYENO TRANSTECH LTD. (Uyeno Transtech) and YANMAR POWER TECHNOLOGY CO., LTD. (Yanmar Power Technology) announced that we obtained Approval in Principle (AiP) on June 19, 2024, from Nippon Kaiji Kyokai (ClassNK) for our jointly developed design of oil tanker with liquefied hydrogen fueled engine. This is the first AiP in the world for the design of an oil tanker using liquefied hydrogen as a fuel

Reflecting worldwide movement toward decarbonization, shipping industry also needs to take quick action. This design has been verified as a feasible design for construction after infrastructure of hydrogen such as supply chain and bunkering as ship fuel is in place. We, Mitsui E&S Shipbuilding, are continuously contributing to decarbonization in maritime industry with our advanced and technical experiences.

[AiP Award Ceremony]



From left to right

Mr. Tetsuya Kikyo, Program Director Ocean and Maritime Division Ocean Affairs Department,
The Nippon Foundation

Mr. Masaki Matsunaga, Executive Vice President / Director of Plan Approval and Technical
Solution Division, ClassNK

Mr. Gen Uyeno, President & COO, Uyeno Transtech

Mr. Akihiro Tomita, General Manager Executive Officer Marine Products Sales and Marketing
Division Large Power Products Business, Yanmar Power Technology

Mr. Yasunori Kohatake, President Representative Director, Mitsui E&S shipbuilding



[Main Points of this AiP]

- (1) This design uses "liquefied hydrogen" as fuel, which allows to store larger quantities of hydrogen than when hydrogen is stored as a gas.
- (2) This is the first design to apply ClassNK's guideline "Part D of Guidelines for Ships Using Alternative Fuels; Guidelines for Ships Using Hydrogen as Fuel (Edition 3.0.0)"
- (3) This design adopts a concept of arranging the hydrogen fueled engine as power generator in engine room for electric propulsion.
- (4) Approval from ClassNK as a "tanker" ship design with the specification of hydrogen fuel.

[Image]



The image of this ship with a concept of arranging the hydrogen fueled engine as power generator in engine room for electric propulsion

[Outline]

Mitsui E&S Shipbuilding Co., Ltd.

Established: May 2017 (Founded in November 1917)

Address of headquarters: Daiba Frontier Building 13F, 2-3-2, Daiba, Minato-ku, Tokyo

Representative: President: Yasunori Kohatake

Business: Ship Design & Engineering, Technical Consulting / Drawing Supply, Dispatch of Engineer,

Ship Digitalization, Sales of Dual Fuel Supply System, Brokerage Service, etc.

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