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Hard Sail Completed for ‘Wind Challenger Project’ and Installation Underway on Large-scale Vessel ~Using Wind as Vessel Propulsive Force~

TOKYO—Mitsui O.S.K. Lines, Ltd. (MOL; President & CEO: Takeshi Hashimoto) and Oshima Shipbuilding Co., Ltd. (President: Eichi Hiraga; Headquarters: Saikai-shi, Nagasaki Prefecture) today announced the completion of the hard sail system jointly developed under the “Wind Challenger” project at the Oshima shipyard.

MOL have been promoting the Wind Challenger Project to harness wind as a propulsive force for merchant ships. The additional propulsion power from wind can reduce a vessel’s greenhouse gas (GHG) emissions by an estimated 5% to 8% compared to conventional ships of the same class. (Note 2)

The hard sail will be installed on a bulk carrier currently under construction at Oshima Shipbuilding after shoreside tests. The vessel is slated for delivery this fall after sea trials and engaged in the transport of cargoes for Tohoku Electric Power Co., Inc.

MOL set out its plan to achieve net zero GHG emissions by 2050 through concerted group-wide efforts in “MOL Group Environmental Vision 2.1” (Note 3). The company will contribute to reduce GHG emissions from society at large, and realize a low-carbon and decarbonized society by proactively participating not only in this project, but also by establishing clean energy supply chains. It will also move assertively to promote wind-related businesses including the Wind Challenger-developed hard sail.

Please stay tuned for updates on the Wind Challenger Project.

“Hard Sail for Wind Challenger”
Left: Shortened Hard Sail  Right: Extended Hard Sail
The Wind Challenger Project started in 2009 with the "Wind Challenger Plan," an industry-academia joint research project led by The University of Tokyo, and since 2013, the team has been chosen to receive a subsidy on next-generation marine environment-related technology research from Japan's Ministry of Land, Infrastructure, Transport and Tourism. In January 2018, MOL and Oshima Shipbuilding took charge of the plan and now play a central role in this project.

For details, please refer to the following URL:

Please refer to the following past press releases related to the Wind Challenger project:
- October 3, 2019
"Wind Challenger" Design Acquires Preliminary Approval - Realizing Japan's 1st Large Cargo Ship with 'Sail'. Aiming at Reduction of GHGs -
- December 10, 2020
MOL, Tohoku Electric Power Sign Deal for Transport Using Coal Carrier Equipped with Hard Sail Wind Power Propulsion System (Wind Challenger)

(Note 2) Reduced GHG emissions by about 5% assuming a Japan-Australia voyage, and by about 8% on a Japan-North America West Coast voyage.

(Note 3) MOL Group Environmental Vision 2.1
https://mol.disclosure.site/en/themes/101

For further information, please contact:
Mitsui O.S.K. Lines, Ltd.
Media Relations Team, Corporate Communication Division
E-mail: mrtmo@molgroup.com /TEL: 03-3587-7015/FAX: 03-3587-7705