MIURA News Release

MIURA CO.,LTD.

Head Office: 7 Horie, Matsuyama, Ehime 799-2696, Japan
URL: https://www.miuraz.co.jp

Issued July 12, 2022

MIURA CO.,LTD. + Kobe Steel, Ltd.
Notice of conclusion of technical licensing agreement on binary cycle power generation system for ships

TOKYO, July 12, 2022 — MIURA CO.,LTD. (Head Office: Matsuyama, Ehime; President & CEO: MIYAUCHI Daisuke, hereinafter referred to as “MIURA”) and Kobe Steel, Ltd. (Head Office: Chuo-ku, Kobe; President & CEO: YAMAGUCHI Mitsugu, hereinafter referred to as “Kobe Steel”) signed a technical licensing agreement (development, manufacturing, and sales) on binary cycle power generation[*1] systems for ships (hereinafter referred to as “binary power generation for ships”) on July 4, 2022. In line with this agreement, MIURA aims to begin sales of binary power generation for ships around 2025.

Reduction of GHG emissions and stronger environmental regulations in the ship industry has led to a shift from oil fuel to LNG, and with efforts in transitioning to new fuels in order to achieve zero CO_2 emissions from 2030 onward, MIURA is engaged in developing products that can handle new fuels with a focus on marine boilers. While there is a push to transition to new fuels in order to reduce or achieve zero CO_2 emissions, energy needs on vessels are changing, and demand for energy-saving measures (reducing fuel, etc.) is increasing.

MIURA and Kobe Steel jointly developed the binary power generation for ships which uses the exhaust heat from the high-temperature turbocharger[*2] supplied to the main engine and conducted sea trials on a ship in 2017[*3]. Additionally, Kobe Steel has conducted long-term ship trials including this system on four vessels, confirming performance and durability in actual operations.

In addition to exhaust heat from the turbocharger, there are other unused heat sources on the ship such as exhaust gas from the main engine and surplus steam. The volume of such exhaust heat differs depending on the main engine load, however, utilizing the features of the Kobe Steel screw binary power generator which is capable of stable power generation across a wide range from low to high loads, MIURA is developing a new binary power generation system and multiple unit system for ships with multiple heat sources. By increasing power generation in the low to medium load range to decrease fuel consumption on the main engine and expanding compatibility to vessels with large main engines, we will further contribute to energy saving and reduced CO_2.

The expander used in binary power generation for ships is provided by KOBELCO COMPRESSORS CORPORATION.

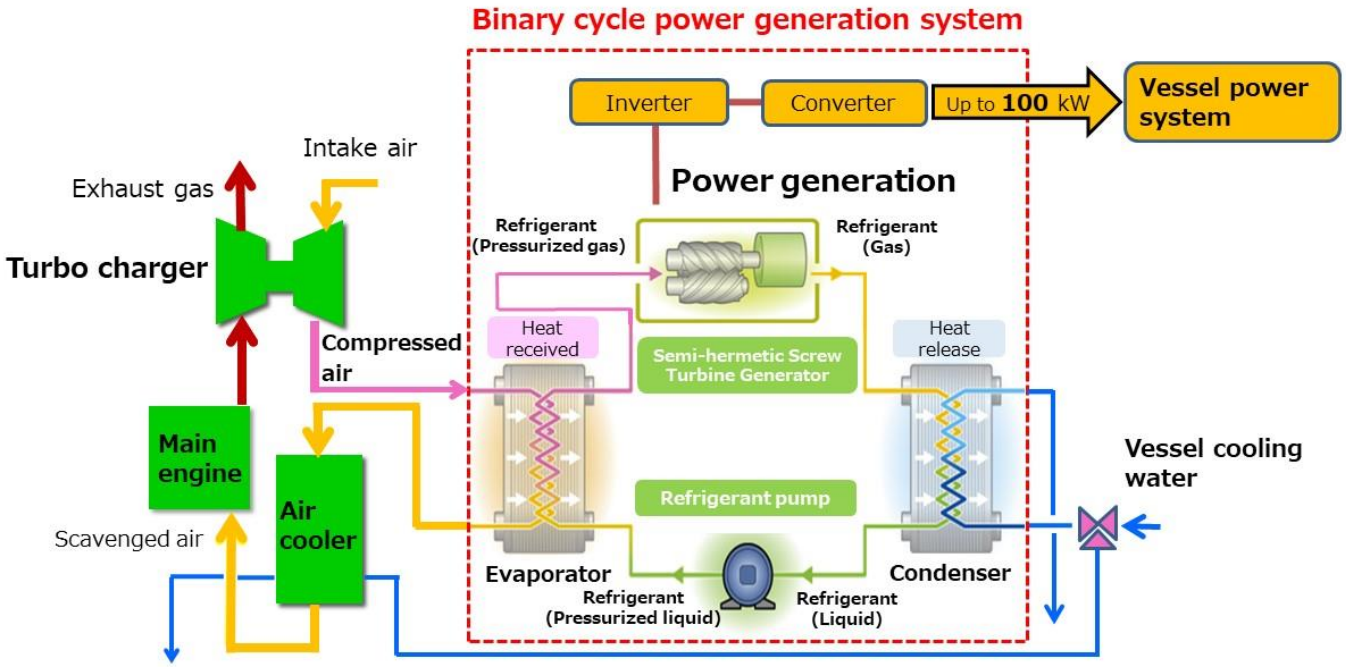
As a marine equipment manufacturer, MIURA is engaged in commercializing auxiliary marine boilers, incinerators, water generators, ballast water management systems, etc. Utilizing our accumulated experience and strengths, we look forward to expanding our lineup of binary power generation systems for ships, providing total solutions for ships, and bolstering our after-sales service.

*1 Binary cycle power generation
This is a method that uses a heat source to heat and vaporize a medium with a low boiling point to rotate the turbine with the generated steam.
It is called binary cycle power generation because it consists of two cycles: a heat source system and medium system.

*2 Turbocharger
This device accelerates gas fed to the engine to increase density.

*3 MIURA news release on March 28, 2017
https://www.miuraz.co.jp/news/newsrelease/2017/843.php

Binary cycle power generation system for ships



▼Inquiries
Corporate Communications Department, MIURA CO.,LTD.
Tel: (+81) 89 979 7019 Fax: (+81) 89 979 7126
Email: info_miuraz@miuraz.co.jp