ENVIRONMENTAL FEATURES OF 17,000 DWT GREEN HANDY

NO EMISSIONS TO THE SEA

No waste water to the sea
Grey and black water can be treated in the sewage treatment unit, stored onboard and discharged to shore reception facilities.

Cargo hold wash water recovery system
The vessel can store and reuse the washing water and discharge used washing water to shore reception facilities.

Ballast water treatment system (BWTS)
UV-type system with capacity of 2 x 800 m^3/h. System is United States Coast Guard approved.

POWERED BY GREEN METHANOL & HYBRID SYSTEM

Powered by fossil-free green methanol
Methanol engines and large methanol tanks enable a fossil-free operating range of 10,000 nautical miles.

Powerful hybrid system
Approximately 1 MWh hybrid system can be used for cargo cranes' peak shaving, blackout prevention, thruster operation and emission-free operation in port.

Shore power connection
Vessels have both low and medium-voltage (6.6kV) shore power connection. Enables emission-free cargo operations with cranes in ports where medium-voltage shore power is available.

EEDI 25% below requirements
Energy Efficiency Design Index (EEDI) of the vessels is approximately 25% below the EEDI Phase 3 requirements.

OPTIMAL HULL DESIGN

Hydrodynamic hull form
Extensive CFD calculations and model testing were performed to optimize hull form. The bow and stern thruster tunnel openings are provided with scallops and streamlined grids. Special attention is paid for monitoring of hull surface roughness during the building stage.

High efficiency propeller and rudder
Optimal hydrodynamic design of the propeller enables efficient thrust.

Low-friction hull coating
Hull is painted with low-friction ice-resistant paint. No harmful antifouling paint is used. Frequent hull cleaning will be performed to reduce the drag of the hull.

PACKED WITH ENERGY-SAVING TECHNOLOGY

Power Take In/Power Take Out shaft generator with VFD drive
The shaft generator enables flexible and efficient operation of propulsion and power generation at sea as well as extra power for ice conditions through power take in/power take out mode.

Energy smart accommodation
Waste heat recovery system with heat pumps supply heat for accommodation. The air conditioning system is equipped with a heat recovery wheel. Improved thermal insulation with a higher U-value reduces energy consumption for heating.

Dynamic drive for propulsion
Optimisation of the relation between the engine rpm and propeller pitch at constant thrust, which reduces fuel consumption. Possibility to set a maximum speed and/or fuel consumption. The dynamic drive takes also into the thrust generated by e.g. rotor sails.

Energy management system
The system enables crew to optimize energy consumption onboard.

Electrical cargo cranes
Energy-efficient VFD electrical cargo cranes with low power consumption reduce auxiliary engine demand.

Variable frequency drive equipment
Cargo cranes, engine room fans and dedicated pumps in engine room are equipped with frequency drives.

READY FOR NEW TRADES

Great Lakes fitted
As the first vessels in the fleet, vessels are fitted for the trade in the Great Lakes and the United States.

Large deck capacity
Thanks to accommodation and bridge placed in the bow, vessels are able to load high and oversized cargoes on deck.

Ready for breakbulk cargoes
Cargo holds are equipped with tweendecks enabling efficient stowage of breakbulk cargoes.

ESL Shipping