
Press releaseCopenhagen, 22nd January 2020

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MAN Cryo to Supply Icebreaking RoRos with Fuel Gas Supply System

Dual-fuel 9L28/32DF engines included in MAN scope of supply

MAN Cryo – MAN Energy Solutions' marine LNG fuel-gas-system manufacturer – has signed the contract to supply the LNG fuel-gas supply systems to Wallenius SOL, the Swedish shipping line, in connection with the building of two RoRo newbuildings in China at Yantai Raffles shipyard. MAN Energy Solutions has also been selected to supply 2 × 9L28/32DF dual-fuel auxiliary engines to each vessel. Wallenius SOL states that the vessels will run on LNG, making them among the most environmentally efficient vessels in that part of the world. Upon construction, the vessels will be the largest to ever meet Finnish/Swedish ice class 1A Super standard, ensuring year-round service in the frozen Gulf of Bothnia.

The 242-metre newbuildings will have a sailing speed of 20 knots and a capacity of 5,800 lane metres. Delivery of the vessels is scheduled for 2021 and the order includes an option for two further vessels. Wallenius SOL is a shipping line formed by Swedish concerns Wallenius Lines and Svenska Orient Linien (SOL).

Louise Andersson, Head of MAN Cryo, said: “These RoRos will operate in a sensitive, sulphur-emission-control area in harsh winter conditions where a reliable LNG fuel-gas supply system is of the utmost importance. We are very pleased that both shipyard and shipowner trust us to deliver the fuel-gas supply system for such unique vessels.”

MAN Cryo's scope of supply for the vessel covers:

- 2 × 685 m³ vacuum tanks including tank connection spaces (TCSs) with LNG fuel pumps
- bunker stations with a capacity of 500 m³/h
- automation, emergency shut-down and gas-detection systems.

Under-deck mounted tanks with air locks allow the amount of fresh air sucked into the tank rooms to be reduced to a minimum. This is an important consideration in the tough winter conditions the ships are set to operate in, where the amount of cold air in the vessels needs to be kept to a minimum.

Environmental benefits

The new vessels will bring many environmental benefits compared with standard, heavy-fuel RoRos including reduced fuel consumptions and lower emissions:

- 50% fuel consumption per tonne-km thanks to larger vessels, more efficient engines and ship design
- 60% decrease in emissions of greenhouse gases per transported unit in CO₂ equivalents

- 98% decrease in sulphur dioxide (SO_x) emissions
- 85% decrease in nitrogen oxides (NO_x)
- 95% decrease in particulate emissions.

About Yantai Raffles Shipyard

Yantai CIMC Raffles shipyard belongs to CIMC group, which is a global energy and logistic company listed in both Shenzhen and Hong Kong. The company including three yards and four engineering centers with two (Bassoe Technology AB and Brevik Engineering AS) in Scandinavia, have built multiple international offshore and marine projects. The ice-classed RoRos are the first ships the shipyard is building for a European owner.

About Wallenius SOL

WALLENIUS SOL is a joint venture shipping company formed by Wallenius Lines and Swedish Orient Linien (SOL). It operates scheduled services from main ports in the Gulf of Bothnia to and from Europe/UK with a main cargo of paper products, as well as steel, trailers and containers. Wallenius SOL has ordered up to four RoRo vessels running on LNG power, to be built between 2019-2021 by Wallenius Marine. The newbuildings in this new order will join an existing fleet of five RoRo vessels.

About MAN Cryo

MAN Energy Solutions took over fuel-gas specialist Cryo AB in 2015 and fully integrated it into its business. Under the brand MAN Cryo, the company offers systems for the storage, distribution and handling of liquefied gases.



Graphical rendering of the new RoRo vessel (picture courtesy Wallenius SOL)

MAN Energy Solutions enables its customers to achieve sustainable value creation in the transition towards a carbon neutral future. Addressing tomorrow's challenges within the marine, energy and industrial sectors, we improve efficiency and performance at a systemic level. Leading the way in advanced engineering for more than 250 years, we provide a unique portfolio of technologies. Headquartered in Germany, MAN Energy Solutions employs some 14,000 people at over 120 sites globally. Our after-sales brand, MAN PrimeServ, offers a vast network of service centres to our customers all over the world.