WÄRTSILÄ

WÄRTSILÄ **Exhaust Gas Cleaning**

SuperSpeed II

CASE STUDY

PROJECT INFO

New inline scrubber design aids retrofit ferry installation

Wärtsilä exhaust gas cleaning technology is an economical and environmentally friendly solution for tackling all present and future rules and regulations, and are designed to provide flexibility and reliable operations wherever you operate.

Wärtsilä's scrubber system solutions are suitable for both newbuildings and retrofitting of existing vessels having either 2-stroke or 4-stroke engines, as well as oil-fired boilers.

Where there are space restrictions that prove a challenge for scrubber system operations, Wärtsilä's new innovative inline scrubber system overcomes these issues and eases the installation process.

CUSTOMER
Color Line

VESSEL TYPE
Ro-Ro/Passenger Ship

FLAG
Norway

LENGTH X BREADTH
212 m x 26 m

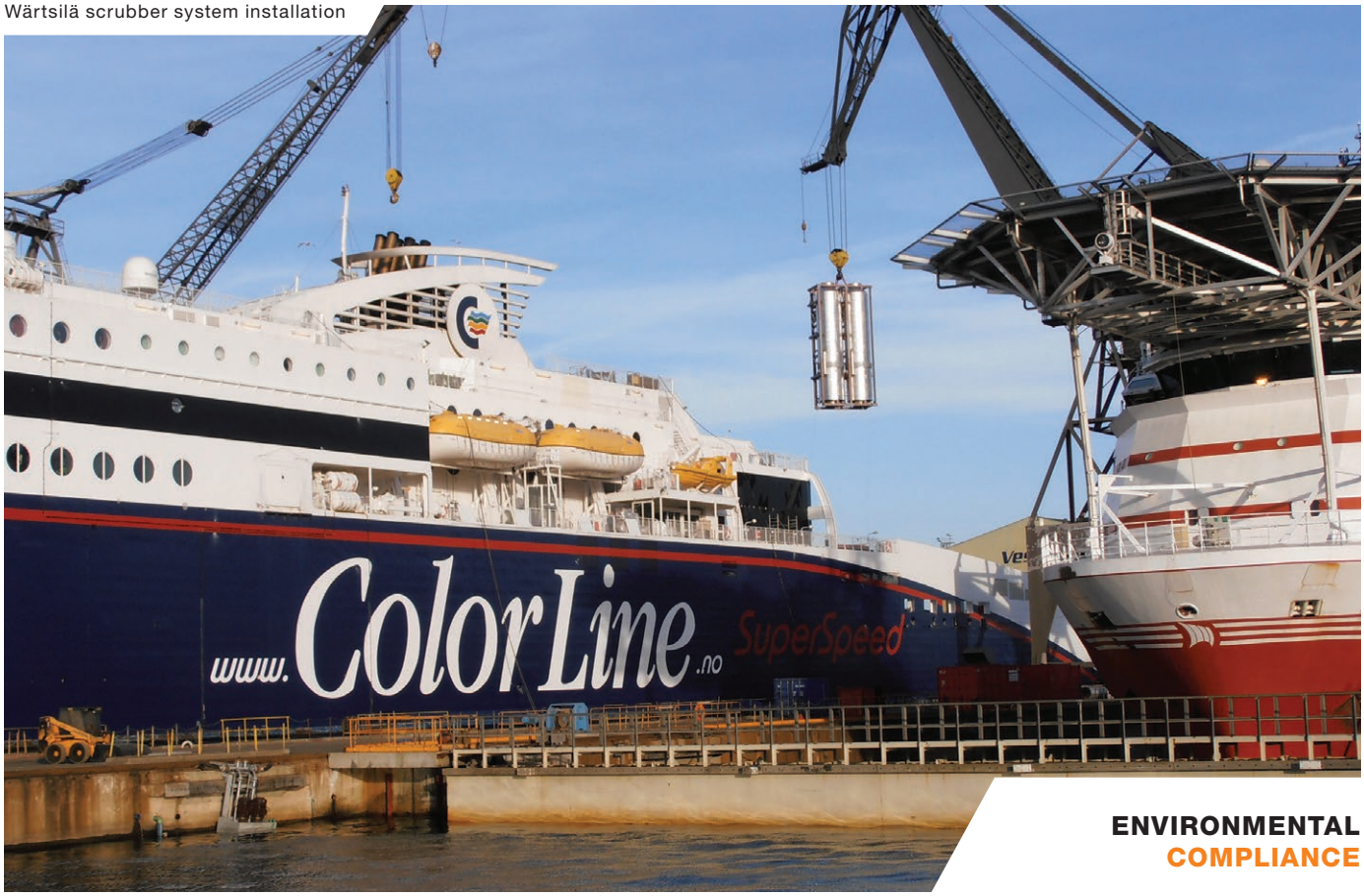
DEADWEIGHT
5400

GROSS TONNAGE
34231

WÄRTSILÄ SCOPE OF SUPPLY
4 x Open Loop Scrubber Systems
4 x 9.45MW Engines

04 / 2018

Wärtsilä scrubber system installation



ENVIRONMENTAL COMPLIANCE

Color Line's high speed ferry 'Superspeed II' sails twice a day between Larvik in Norway and Hirtshals in Denmark with a service speed of 27 knots. Wärtsilä installed four open loop scrubber systems to ensure the ship's full compliance with the International Maritime Organization's (IMO) MARPOL Annex VI regulations, and with EU Directive 2055/33/EC.

The 'Superspeed II' has limitations on the available space in the funnel and Wärtsilä has developed a new inline scrubber system that offers a practical solution for overcoming this restriction. The new scrubber has no external venturies significantly reducing the footprint. Wärtsilä's inline scrubber system operates as a conventional Wärtsilä open loop exhaust gas scrubber, but has three water inlets in the main body of the scrubber, as opposed to two in the conventional system. The exhaust flows enters from the bottom and exits at the top, with water being sprayed in three stages in a counter flow to the exhaust. A water trap prevents the scrubbing water from entering the engine.

The Wärtsilä inline system is designed for one scrubber per engine, thus saving space and providing operational flexibility. The fact that the system has a reduced footprint and no external venturi means that installation is made easier, which consequently reduces the time the vessel is out of service.

The 'Superspeed II' ferry includes 4 x 9.45MW Wärtsilä engines running at 2.3%S. Wärtsilä worked closely together with Color Line, and the development of this project was aided by the reliability and technical knowledge provided to the owner through Wärtsilä's Exhaust Gas Cleaning team. Today there are three additional Color Line vessels in operation that have been retrofitted with Wärtsilä Open Loop Scrubber Systems – the 'Superspeed I', 'Color Magic' and 'Color Fantasy'.

Wärtsilä has an unrivalled reference list, and data from operational exhaust gas cleaning units confirm sulphur oxide gas removal in excess of 98%. This means that with full installation, vessels are ECA compliant and the systems provide unparalleled reductions in harmful ship emissions.

www.wartsila.com **egc-sales@wartsila.com**

WÄRTSILÄ