

PRESS RELEASE

Zeppelin Power Systems Supplies UV Ballast Water System to Hapag-Lloyd for the MS Hanseatic

Hamburg, 03/09/2016. Zeppelin Power Systems has installed an Optimarin ballast water system on board the MS Hanseatic on behalf of shipping company Hapag-Lloyd. By choosing to invest in the OBS 125-FS, the shipping company has opted for sustainable operation for the world's only five-star expedition cruise ship, with a resource-efficient, environmentally friendly system that helps to protect our ecosystems.

The environmentally friendly ballast water system by Optimarin meets the IMO D2 standard and therefore enables vessels to travel to all regions, even those with particularly sensitive ecosystems such as the Arctic and Antarctic. As a result, Hapag-Lloyd already complies with international standards for the treatment of ballast water that have yet to be enforced.

"Following the MS Europa, the Hanseatic is the second cruise ship that we have equipped with the Optimarin ballast water system. We were especially impressed by the system's clear and simple layout, its low maintenance requirements, and the associated advantages of a simple and reliable system" explains Ulf Neugebauer, Senior Superintendent at Hapag-Lloyd. "While working on the project, we were able to rely on Zeppelin Power Systems' expertise. We value the company as an expert sales and service partner after already working with them on a number of engine projects."

UV treatment for ballast water – low-maintenance and cost-efficient

The OBS 125-FS Optimarin ballast water treatment system is designed for a maximum volume flow of 125 m³ per hour for ballast. The ballast water is first filtered and then treated effectively using a single medium-pressure UV light with a broad energy spectrum. Ballast water is treated reliably without the use of chemicals and biocides, thereby helping to protect ecosystems. A self-cleaning effect is generated by the high surface temperatures of up to 800 °C on the quartz glass – as a result, there is no longer a need for cleaning modules, wiper systems, or skimmers.

"The high temperature and resulting cleaning effect for the glass cylinder is similar to the pyrolysis process now used in modern, self-cleaning ovens," explains Philip Hammerschmidt, BWTS Product Manager at Zeppelin Power Systems. "These qualities make the system exceptionally effective, low-maintenance, and therefore cost-efficient."

At the shipping company's request, the system was incorporated into the ship's control system so that it can be easily operated from the control room or bridge.

Speedy project completion in parallel with planned dock times

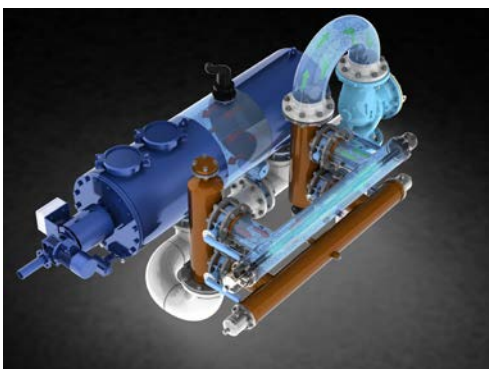
During the project, Hapag-Lloyd was able to rely on Zeppelin Power Systems, who provided a full end-to-end service from selecting the components and liaising with the classification institute DNV GL to preparing all documentation. From the conclusion of the contract to the technical acceptance, it took just three months to install the BWT system. To achieve this, Zeppelin Power Systems used the docking time planned for general ship maintenance work. "The actual time taken to install the entire system and integrate it into the ship control system was just six days," adds Philip Hammerschmidt.

Zeppelin Power Systems has been an official partner to Optimarin, the Norwegian manufacturer of ballast water systems, since 2014. The company is one of the biggest providers of ballast water systems and has been on the market since 2000. Since then, Optimarin has sold more than 600 systems, 250 of which have already been installed while the rest are part of fleet contracts. The systems meet the IMO D2 standard and therefore the requirements for all conventional marine classification companies. Optimarin technology is the first solution of its type to meet the US Coast Guard's sea water testing procedures with approval expected in 2016.

Following its stay in the docks, the MS Hanseatic was back out on expeditions: first visiting Spain and Portugal before crossing the Atlantic from Tenerife to Rio de Janeiro so that it could offer cruise trips to the Antarctic between November and March. The world's only five-star expedition ship offers a maximum of 175 guests unique trips in an intimate setting.

Photo:

Caption: The MS Hanseatic is equipped with an Optimarin ballast water system.



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About Zeppelin Power Systems

Zeppelin Power Systems is the official partner of Caterpillar for Cat, MaK and EMD engines and a leading provider of drive, propulsion, traction and energy systems and has been partnering with Caterpillar for 60 years. With about 800 employees, Zeppelin Power Systems offers their customers individual, highly efficient system solutions with comprehensive services for industrial and marine applications, the oil and gas industry, rail vehicles and power generation.

About Zeppelin GmbH

The Zeppelin Group operates 190 sites around the world. In the 2015 fiscal year, its 7,800 employees generated sales of over 2.3 billion euros. Group-wide collaboration in the Zeppelin Group revolves around a management holding company and six strategic business units: Construction Equipment EU (sales and servicing of construction machines), Construction Equipment CIS (sales and servicing of construction and agricultural machines), Rental (rental and project solutions for the construction and industry sectors), Power Systems (drive, propulsion, traction, and energy systems) and Plant Engineering (engineering and plant engineering) as well as Digital Services and Solutions (new digital business models). Zeppelin GmbH is the Group holding company. It is legally domiciled in Friedrichshafen and has its head office in Garching near Munich, Germany. For more information, please visit www.zeppelin.com.

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