

# Keeping a clean coat

Operational efficiency is becoming increasingly important for ship operators. The right hull coating can be part of the solution – the cruise industry has special needs

Cruise ships operate differently to cargo vessels and a hull coating must be trusted to deliver flexible protection

Photo: Hempel

Unlike most sectors of the shipping industry which have struggled in recent years, the cruise segment has enjoyed year-on-year growth which looks set to continue. Annual passenger volumes have expanded by an impressive 6.5% on average and analysts predict further growth to the end of the decade and beyond.

With seven new ships added to the market in 2015 and a further 15 earmarked for delivery this year and next year, the sector is expanding its capacity and global footprint. Although these ships traditionally operate in the warm waters of the Caribbean and the Mediterranean, cruise operators are now stretching their reach into in China, Asia and the Middle East.

Coating manufacturer Hempel recognises that this current expansion is increasing competitiveness and encouraging operators to search for innovative solutions that improve their operational energy efficiency. In tune with the market, the company believes that a vessel's energy efficiency cannot be improved with one single initiative. Optimum solutions are derived from a combination of design, technical and operational factors and this mix should also include the right choice of marine coating.

Cruise ships generally operate in warmer waters and this tends to encourage fouling. It is well known that a clean and smooth hull reduces friction between the ship and the sea making the movement of the ship through the water more efficient. A streamlined movement uses less fuel which increa-

ses operational efficiency and, in turn, means less harmful emissions are released into the atmosphere. Cruise ships operate differently to cargo vessels and a hull coating must be trusted to deliver flexible protection at slow and regular steaming speeds as well as during long idle periods in port.

Environmental concerns are often high on a cruise ship operator's agenda and with evolving environmental regulations it is important to use a coating that minimises the vessel's impact on the world's oceans.

Coatings with a high solids ratio and low biocide content should be preferred. The higher the solid content, the less volatile organic compounds (VOCs) are released into the atmosphere on application, and 70% solids are becoming fairly standard for many of Hempel's products. A positive side effect of a high solids content is that less paint evaporates on application ensuring more is applied to the vessel – less waste equals less cost – increasing operational efficiency.

Responding to customers' needs allows Hempel to provide a service and a range of products that are tailored to the demands of the cruise sector. As well as the need for reliable protection, operators are also looking for ease of application to reduce expensive time in dry dock and vessel downtime. So what is the perfect hull coating for a cruise ship?

Hempel believes the answer is Hempaguard, their award-winning fouling defence product that was launched in 2013. Hempaguard, guarantees foul-

ing free performance and delivers an average fuel-saving of 6% at low speeds and also during extended idle periods of up to 120 days. The coating retains its effectiveness at both slow and fast speeds to give cruise fleet operators added flexibility.

Earlier this year, more than 500 vessels had been fully coated with Hempaguard, 12% of these were cruise ships. Back in 2013, Hempaguard X7 was applied to Royal Caribbean International's »Vision of the Seas«. Not only was this solution selected for its flexibility and efficiency, but also because it is the first product to use Hempel's patented Actiguard technology that integrates silicone-hydrogel and full diffusion control of biocides in a single coating, releasing 95% less biocide than a standard SPC antifouling paint.

As the cruise sector focuses more on fuel saving and environmental protection, when choosing a hull coating it is certainly a matter of »you get what you pay for« – quality and price go hand-in-hand. By investing in the right hull coating the return on investment can be significant, and the important role hull coatings play in the never ending search for efficiencies and environmental protection should not be underestimated.

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