

Transparency is key to operational efficiency

The shipping industry is continuing to face difficult market conditions, despite improvements in some sectors.*

In general, tankers sailed through 2016 relatively unscathed, however 2017 looks set to see a return of tonnage oversupply, which is unlikely to be absorbed given the low activity in the oil and gas sector. Tanker operators, like many others, are under increasing pressure to find ways to meet their operational efficiency needs.

Growing overcapacity continues to fuel market competitiveness and so a combination of factors is needed to raise the efficiency bar – these might include operational, technical and design initiatives, including the impact a hull and propeller has on vessel performance.

A clean and smooth hull undoubtedly reduces friction between the ship and the sea, improving the hydrodynamics, which in turn reduces fuel consumption and the amount of harmful emissions released to the atmosphere. This is where the right choice in hull coating can pay dividends but only if the benefits can be quantified.

The International Organisation for Standardisation (ISO) recently published a set of fully transparent methodologies, ISO 19030, to measure changes in ship specific hull and propeller performance, and to define a set of relevant performance indicators for

hull and propeller maintenance, repair and retrofit activities.

By measuring changes in ship specific hull and propeller performance over a period of time, this can provide an indication of the overall efficiency of the vessel.

Having been deeply involved with the development of the ISO 19030 from the beginning, we are pleased these new internationally recognised and accepted standards have been published and believe they have come at the right time.

This new standard has come at a time when operational efficiency is at the top of every tanker operator's agenda. Operators are having to comply with ever-stricter environmental regulations whilst simultaneously competing in a difficult market. We have found that the potential for improvements in hull and propeller performance on the energy efficiency of vessels is significant, with estimates of potential savings in the range of 6% on average in terms of fuel and greenhouse gas emissions savings.

Prior to the publication of ISO 19030, we established a corporation agreement with DNV GL to work together to bring customers more advanced clear, comprehensible and

verifiable analytics to track and assess hull and propeller performance. By collaborating with DNV GL, we can offer state of the art hull degradation analytics, and are now able to provide transparent and verified data with only a

few simple measurement inputs.

The collaboration between Hempel and DNV GL is fully compliant with ISO 19030 standard. It has a more holistic approach to performance monitoring and will enhance the analysis and the results, by evaluating both the absolute performance of the vessel (ie, present performance versus newbuild performance) and the relative performance of the hull coating over a specific time period.

Euronav test

A company we are collaborating with, Euronav, is one of the global leaders in the shipping of crude oil. Euronav recently chose to apply our fouling defence coating Hempaguard to four more of its vessels following impressive test results on a 300 sq m demonstration application. Following a diving inspection, it was found that Hempaguard was still showing a smooth and fouling-free performance after 23 months in service and after 45 months in service.

Hempaguard, founded on our innovative Actiguard technology, is based on silicone-hydrogel and biocide science. This unique formulation delivers average fuel savings of 6% across the entire docking interval, and comes with a fouling free guarantee of up to 120 idle days. Hempaguard also retains its effectiveness when switching between slow and regular steaming offering tanker owners even more flexibility in how they utilise their fleet.

With efficiency gains in mind, initiatives such as these provide the mechanism to show how the choice of a marine coating can impact significantly on the performance and efficiency of a vessel. ISO 19030 provides the foundation and a transparent framework for vessel performance analysis, and by investing in the right hull coating solution, return on investment has never been greater in this area.

**This article was written for Tanker Operator by Andreas Glud, Group Segment Manager Dry Dock Marine, Hempel A/S.*

