CASE STUDY

Intersleek 1100SR helps tankers generate over 10% fuel savings
Summary

Maintaining vessel performance and operating costs within budgets is one of key concerns of a tanker operator, as well as asset protection throughout the lifetime of the vessel. The use of foul release coatings on over 700 tankers provides a significant track record demonstrating the benefits of using this technology to overcome these concerns in this competitive market segment. The global trading route of tankers presents an additional challenge to underwater coatings, and the performance charts below show how we made it possible to generate savings for them.

Challenges

Tankers generally operate in a global trading pattern with numerous very high fouling challenge regions around the globe. Furthermore, they normally have frequent stops due to the loading and discharging of cargoes. Therefore, an effective underwater coating is essential to their operation.
How We Made It Possible

These three charts show how Intersleek 1100SR has maximised the hull efficiencies on tankers.

Chart 1 shows that over 10% fuel saving has been achieved during 29 months after the application of Intersleek 1100SR on a typical chemical tanker (DWT 19,874), which demonstrates the maintenance of the smooth hull achieved by superior slime release performance of Intersleek 1100SR. Furthermore, despite two static periods of several weeks duration in high fouling challenge areas, the performance was still maintained with no significant increase in fuel consumption.

Chart 2 also demonstrates over 10% fuel saving with the application of Intersleek 1100SR and negligible degradation rate on a chemical tanker (DWT 19,885). After two years in-service at the interim docking, less than 2% touch-ups were required and the performance was maintained.

Chart 3 demonstrates the slime release benefits of Intersleek 1100SR on larger tankers, such as the crude oil tanker (DWT 157,048), with over 10% fuel savings achieved.

Results, Return on Investment and Future Plans

In comparison to other technologies, Intersleek 1100SR has demonstrated excellent slime release properties. The picture on the right shows the performance after 38 months in-service on a chemical tanker. Its innovative fluoropolymer technology and extremely low roughness for underwater areas lead to minimal macro and micro fouling observed on vessels, which results in significant savings to vessel operators.
**Myth-buster**

**Can I only apply Intersleek on fully blasted hulls?**

Intersleek can be applied onto aged biocidal coatings or fouling release coatings through the use of linkcoat systems, Intersleek 717 or Intersleek 7180. They can effectively help to reduce the surface roughness of biocidal systems and provide excellent adhesion of the finish coat, giving the benefits of Intersleek foul release systems without full blasting.

Through combining the flexibility of Intersleek linkcoat with the extremely low surface roughness of Intersleek finish coats, a surface with low roughness, similar to that of a blasted system, can be achieved.

So far, over 300 applications of Intersleek coatings have been completed using linkcoat schemes. This represents a saving of around USD12 million in blasting costs. This also saves time in drydock, cost of blasting and reduces waste generated.

For an underwater area of 10,000 m², full blast takes around 3-4 days. However, with Intersleek linkcoat, this time isn’t required which results in fewer days in drydock, which approximately is USD40,000 savings in docking costs.

As shown below in the two pictures, there are no adhesion issues or system breakdown. The integrity of a linkcoat scheme is the same as a scheme on a fully blasted surface.

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