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Full Picture Hull Management in action: MV Parana cuts fuel use by 20%

One of the leading shipping companies in Germany, F. Laeisz owns and operates a fleet of 40 vessels, including pure car and truck carriers (PCTC), LPG/ammonia carriers, container ships and research vessels.

The company is driven by an ambition to be a reliable and efficient maritime service provider to its clients. A key part in delivering reliable and efficient operations is to have a dedicated focus on hull management. Therefore, before its MV Parana PCTC went into drydock in 2024, F. Laeisz worked with Hempel Marine to identify the best solution for reducing the vessel's fuel consumption and emissions.

To ensure 360-degree focus on hull management, F. Laeisz decided to apply the MV Parana with Hempaguard X8 silicone hull coating and use Hempel's SHAPE data collection and analysis platform to further improve efficiency. The impact has been impressive. After one year in operation, the MV Parana has reduced fuel use by 5 tons per day, corresponding to a 20 per cent reduction in fuel consumption and emissions compared to the 12 months before drydock.

In addition, the vessel has seen a 20 per cent reduction in EU ETS (Emission Trading System) exposure, which are levied on all vessels over 5,000 tons when calling at European ports and are based on the vessel's carbon emissions.

"Reliability, efficiency and sustainability are central to our operations. With Hempaguard X8 and SHAPE, we've turned a drydocking into a 20% reduction in fuel use and emissions – strengthening both our performance and our customers' supply chains."

Axel Pechmann, Fleet Manager, F.Laeisz

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The challenge

Among its many services, F. Laeisz provides A-to-B route car and truck carrying services for one of Germany's largest car manufacturers. The MV Parana, a PCTC with a capacity of 5,000 revenue tons, runs one of these routes.

F. Laeisz's customer is deeply committed to reducing emissions across its supply chain — including from the PCTCs that transport its cars. The MV Parana already operates on 100% biofuel, but F. Laeisz saw an opportunity to go even further. By switching to a premium silicone hull coating, the company could achieve additional emission reductions — benefiting not only F. Laeisz and its customer, but also the environment.

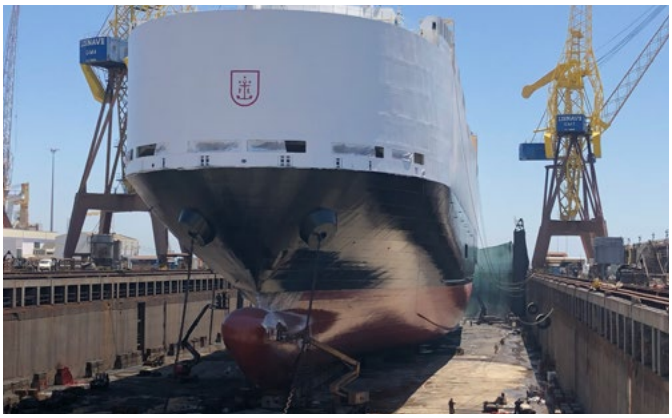
When the MV Parana entered drydock for routine maintenance, F. Laeisz turned to Hempel to help identify the best solution to enhance hull performance and unlock greater efficiency.

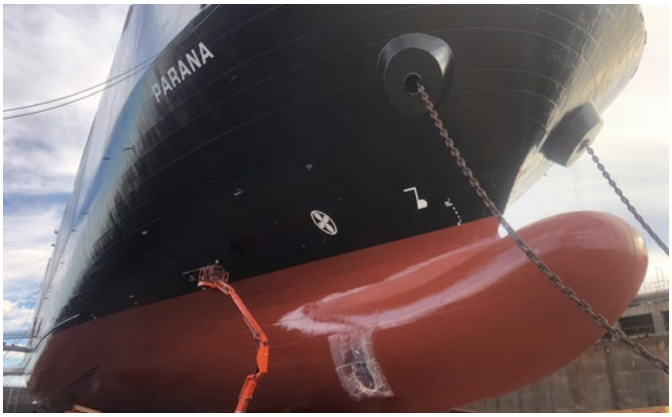
The solution

Hull performance must be seen from a lifecycle perspective. Therefore, we began by evaluating various hull upgrade scenarios, based on MV Parana's trade and operational profile. Following this analysis, we recommended our Hempaguard X8 silicone hull coating in combination with SHAPE (Systems for Hull and Propeller Efficiency), a digital system for hull and propeller performance monitoring and optimisation.

As part of our market-leading silicone hull coating portfolio, Hempaguard X8 is proven to improve efficiency across all vessel types and trading patterns. It delivers an average fuel saving of up to 8 per cent over the entire docking interval compared to best-in-class antifoulings, as well as an average speed loss down to 1.2 per cent.

To maintain peak performance, it's important to understand how the vessel behaves in-service. SHAPE adds that visibility. With SHAPE, F. Laeisz can continuously assess the impact of drydocking, maintenance and in-service hull and propeller solutions on the vessel – giving it the data and insight it needs to continually maximise hull performance.





At a glance	
Customer:	F. Laeisz, a German-based shipping company with a fleet of 40 vessels
Vessel:	MV Parana, a 5,000 RT PCTC
Solutions:	Hempaguard X8 and SHAPE
Application area:	Full application (flat bottom, vertical sides)
Application date:	August 2024
Shipyard:	Lisnave, Portugal

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