

Challenge

Uni-Tankers A/S is a Danish shipping company providing chartering and operation of 38 chemical- and oil tankers for shipowners, investors, brokers, and partners. With a strong dedication to innovation and sustainability, Uni-Tankers actively strives to enhance fuel efficiency, managing operational costs, and boosting competitiveness while prioritizing environmental responsibility.

The integration of SmartPropulsion goes beyond a mere technical upgrade; it represents a strategic investment in the endurance and resilience of Uni-Tankers. This initiative strengthens capabilities, promotes environmental stewardship, and underscores Uni-Tankers' commitment to delivering exceptional service in the continually evolving field of liquid cargo transportation.

Solution

Uni-Tankers chose to install SmartPropulsion on Endelo Swan, a 12-year old chemical tanker. SmartPropulsion is an on-top software solution that automatically optimizes the engine's RPM and propeller pitch for maximum fuel efficiency.

SmartPropulsion's cloud-based technology dynamically monitors and analyzes the vessel's key sailing parameters, including draught, load, waves, and wind, using sensors and AI. This means it learns the ship's operational performance over time, further increasing optimization and efficiency.

Flowmeters were also installed to measure fuel usage, and a torque meter was installed to measure power, RPM, and torque. Not only does this enable Uni-Tankers to monitor engine performance, but also provides documentation of fuel consumption for CII reporting and chartering purposes.

Benefit

The SmartPropulsion solution was installed alongside other already planned maintenance. The solution can however also be installed during a normal port stay, which meant that there is no need for drydocking or disruption to a vessel's planned route.

Following installation, Endelo Swan achieved a significant 12.2% fuel saving and related reduction in CO₂ emissions.

The solution also **provides full documentation** of the vessel's operational performance for CII reporting and chartering. The overall **return on investment was only nine months.**

With such impressive results, Uni-Tankers decided to install SmartPropulsion on seven further vessels, meaning that eight vessels in the company's fleet is today sailing with reduced fuel consumption.

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