Case Study: Sirius Shipping
Retrofit by Høglund

In 2016, Høglund Marine Solutions retrofitted integrated automation systems on two vessels for Sirius Shipping. This ambitious project required Høglund's expert team to retrofit complex, ten-year-old automation systems during a tight dry-docking window. By supplying reliable systems with remote maintenance capability, Høglund increased reliability and efficiency while reducing downtime and delays for both ships.

Sirius Shipping is a small tanker and LNG ship owner that operates 11 vessels in northern European waters and the Baltics. Its fleet consists primarily of tanker vessels. Oil companies such as Statoil (Equinor) charter half its vessels, while the remaining ships operate on the open market.

A family company, Sirius Shipping takes pride in safely handling and shipping products with high efficiency and minimal impact on the environment. As a small company with a focus on service and flexibility, it has a similar mindset and approach to Høglund.

Case Study

Høglund was engaged by Stefan Johansson, Technical Superintendent at Sirius Shipping, to retrofit the oil and chemical tankers M/T Olympus and M/T Tellus. The task was to replace existing ten-year-old automation systems.

The following systems were installed on both vessels:

- Integrated Automation System (IAS) with Cargo Control
- Power Management System (PMS)
- Ship Performance Monitor (SPM)
- GMR Playback with 5 month recording of every signal every second
- Høglund Remote Control, for remote service and support

These ships had the most integrated, and therefore complex, automation systems in Sirius Shipping's fleet, where practically every system was connected. While other ships had separate cargo or loading systems, for example, on these vessels all systems were integrated.

"In 2015, Høglund contacted Sirius Shipping to gauge interest in retrofits," said Stefan. "We knew Høglund from 2012, when the company worked on a small LNG bunker barge for us. From this project it was clear that Høglund solved problems differently to other companies."

Sirius Shipping was particularly excited by Høglund's capability to remotely access ships and resolve issues. The company was also recommended by shipyards, and had a strong word-of-mouth reputation as being responsive and service minded.

Over the years, Sirius Shipping had spent large quantities of time and money keeping automation systems on the M/T Olympus and M/T Tellus running. Poor service and support had become usual, and the difficulties ranged from being minor to mission critical. Engineers frequently had to be called out to the vessels, sometimes requiring software updates onsite in onshore offices as well, resulting in costly downtime and delays, plus the additional costs and disruption in bringing engineers aboard.

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The effect on the company's business was tangible. The downtime required to host engineers meant delayed voyages, which in turn created difficulties with Sirius Shipping's clients, who required delays of even a few hours to be reported and explained.

"Sirius Shipping needed an accountable and responsive automation partner," said Stefan. "Changing an entire automation system is not an easy matter – it can be very costly, and for this reason most ships retain the same automation throughout their lifetime, even if it is unsatisfactory. However, the need for change was clearly necessary, and Høglund was eager to take on the challenge."

For many ship owners, automation is a long way down the list of concerns, and many are happy to simply use the systems that sold as part of a bundle with propulsion systems and other machinery. Sirius Shipping however saw first-hand the costs and difficulties incurred when automation cannot be relied upon – hence it became a major priority. With increasing integration and automation on board, Sirius Shipping saw that this would become an increasingly important concern. In particular, it saw that Høglund's ability to remotely resolve issues would be a huge advantage, eliminating the need for the costly and disruptive onboard maintenance.

"Høglund offered to complete the operation, estimated to take two weeks, in a single week," said Stefan. "Despite scepticism from the shipyard and others over this timeframe, the operation was completed in eight days. This was vital, as Sirius Shipping had a very short dry-docking window. Thanks to seeing the Høglund team's attitude and approach in action before, Sirius Shipping trusted them to get the job done in a short amount of time. The crucial factor here was the trust that Høglund had built up through its service-minded approach."

Stefan concluded: "This fast installation was achieved thanks to the knowledge, professionalism and expertise of the members of the Høglund team. Every member of the team, including engineers and electricians, had an impressive level of expertise. Since the retrofit, Høglund's engineers have been in regular contact to ensure that the systems are working as planned."

Results

Other than reliability benefits, both ships' automation systems are now secured for the next ten years, over which time maintenance is expected to be much more straightforward. This should last for the rest of the oil and chemical tankers' operational lifespans, typically twenty years in total.

The power management systems are much more reliable, and enable discharging operations to run more efficiently, for example. At times the new systems enable the ships to run on two engines rather than three, which enabled better fuel efficiency.

Sirius Shipping was also impressed with the alarm logging system, highlighting the number of inputs that can be recorded and the length of time that monitoring can go on for. The computers installed by Høglund also enabled a new level of visibility into the ship's systems, while Høglund's use of ABB cards and modems, supplying quality hardware matched the quality of the automation systems, further contributed to reliability.