

Iron Ore Freighter Roger Blough Achieves Efficiency Step Change with Honeywell

Case Study

Keylakes Shipping tackles operational strain and high costs through on-board automation

Background

The MV Roger Blough is a 22,000 ton, 15,000hp freighter that has plied the Great Lakes since it was launched in 1972. Designed to carry iron ore, it is named after Roger Blough, the former chairman of U.S. Steel.

The vessel, operated by Keylakes Shipping, is a familiar sight and beloved floating landmark in the Great Lakes – particularly in its home port of Duluth, Minnesota – where its movements are tracked by shipping enthusiasts, young and old. Fortunately for them, the Roger Blough will delight for years to come. Despite its age, the ship is being equipped with new technology that will enable it to continue many more years of faithful service.



Efficiency is critical to the Roger Blough's commercial success. A V16 diesel engine keeps the vast, 858-foot vessel on course, while a myriad of control systems keep it running optimally. However, monitoring all the different and disparate control functions requires tremendous concentration and manpower which, for many years, has thwarted attempts at operational efficiency. So, to ease the strain on the engineering team, and to reduce overall maintenance costs, Keylakes Shipping decided to tackle the long-standing challenges with technology.

Challenge

Monitoring the Roger Blough's different control systems was a time-consuming, stressful job for the ship's engineers. System notifications and alarms frequently required them to leave the control room and head above or below deck to investigate issues.

Keylakes Shipping found the solution to their challenges in the Honeywell HC900 process and safety controller. Certified by the American Bureau of Shipping (ABS) – a must-have for new technology installed aboard ships plying American and international waters – the HC900 is designed to integrate and consolidate notifications from a wide range of process equipment.



The HC900 is allowing engineers to make quicker, smarter decisions that, Keylakes Shipping believes, has saved millions of dollars in potential engine downtime and shipment losses.

The up/down nature of their jobs made it difficult to maintain a holistic view of operations and catch every potential incident. Overall, they felt reactive. What the engineers wanted was a centralized monitoring solution that would allow them to view all critical operations at a glance, giving them the unprecedented ability to proactively prevent damage and downtime.

Solution

Keylakes Shipping found the solution to these challenges in the Honeywell HC900 process and safety controller. Certified by the American Bureau of Shipping (ABS) – a must-have for new technology installed aboard ships plying American and international waters – the HC900 is designed to integrate and consolidate notifications from a wide range of process equipment. It features an intuitive, easy-to-use touchscreen interface through which operational data is clearly displayed, and offers low-cost operation.

Keylakes Shipping sourced, installed and commissioned the HC900 through Honeywell channel partner J&W Instruments, based in New Brighton, Minnesota. Once installed in the Roger Blough, the HC900 unified previously disparate monitoring functions such as engine, temperature, pressure, flow, ballast level and power generators. For the first time ever, the ship's engineering team had the birds-eye view of operations and the proactive control they were looking for.



J&W Field Sales Engineer Bob Lester said: "Keylakes Shipping saw significant value in HC900's ability to pull vital information together in one place, and they felt reassured by the system's ABS certification. This project is strategically important because it's delivered a step-change in how the Roger Blough operates."

Benefits

The HC900 has created a new level of automation aboard the freighter that is saving engineers valuable time and allowing them to detect problems before they occur. No longer do they need to run across or up and down the ship to investigate alarms – all the relevant, vital data is centralized on the HC900 panel display, allowing them to make quick, informed decisions.



In addition to reducing strain on the engineering team and increasing their productivity, Keylakes Shipping believes that the efficiencies of the HC900 have saved millions of dollars in potential engine downtime and shipment losses. The company is also pleased with its return on investment, given the relatively low cost of the system.

Summary

The Roger Blough might be approaching 50, but it has been given fresh, youthful vigor in the form of new operational technology. Thanks to the Honeywell HC900, the vessel is more efficient than ever, and better able to get its precious cargo into the hands of customers whenever or wherever they need it. This capability has extended the ship's utility – and therefore its lifespan – ensuring it will delight harbor-side enthusiasts for many years to come.

For More Information

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