

Manage your Risk in Ship-to-Ship operations

24 Justify your Decisions

Support your Reputation

7

365



being equipped with more and more sensors. "Already today, we have a lot of data available through existing sensors and systems. In addition, we might need to install additional ones. Sometimes we even need to add new cabling. When this is necessary, we use the industry best practices for selecting cables and commissioning," they explained.

Having run remote operations for 20 years, they said that Wärtsilä has employed personnel dedicated to monitor, analyse, give feedback and help customers.

Understanding the complex interactions of multiple systems requires highly skilled experts, who can see the big picture and identify the potential needs for additional support, as well as provide hands-on technical expertise.

"What we see happening now is that even though we build more advanced analytics together with the customers, we don't necessarily need more people to work on the analysis. Instead, more effort is needed in building the models, algorithms and user interfaces that truly benefit the customers," they concluded.

Measuring services

Wärtsilä has also introduced alignment and measurement services to increase customers' operating time by measuring, analysing and correcting alignment issues in propulsion equipment.

"Problems in alignment can lead to serious damage if not detected and remedied in time. As the misaligned equipment rotates, it causes vibration and stress that can result in breakdown of the shaft assembly or, in the long run, even large-scale damage to struts and hulls. Costly repairs and downtime can be easily avoided by regular alignment inspections and realignment when necessary," said René Bertelsen, global sales manager, seals & bearings alignment & measurement services.

Wärtsilä uses patented gyro laser technology to measure the bending line quickly and accurately. Used together with a jack-up system, it allows the engineer to compare the measured bending curve with the actual load in the bearings. Realignment of shaft lines only takes a couple of hours once the necessary tools are in place. Shaft realignment is also useful in case of a bearing failure: measuring and correction can help bring the ship to safely dock for repairs.

In addition, when a stern tube bearing, seal or shaft fails, finding the root cause quickly is of the essence to the customer's operations. For this purpose, Wärtsilä has developed a portable condition measurement system. With this new technology, health checks of equipment can be carried out flexibly while the vessel is in operation. Service engineers can measure the vibration, temperature, torque and position of the equipment to determine the reason for the failure and make the necessary repairs and adjustments.

"Troubleshooting is now easier than ever. Vessels with constant charter can have the portable measurement equipment mounted while loading or unloading cargo to avoid downtime. Monitoring can be initiated within one day, and the system logs all incoming data from the equipment while the vessel is in operation, helping to detect any abnormalities in the functioning of the equipment," Bertelsen explained. "This is a significant innovation that benefits all ship operators, but cruise and ferry operators and container vessels in particular, as avoiding vibration is very important to them and unexpected interruptions can become very costly."

The alignment and measurement offering has been expanded to cover a wide range of equipment: stern tubes, propeller shafts, intermediate shafts, engines, gearboxes, shaft generators, rudders and hulls. All work is carried out using class-approved methods. The new service is available worldwide.