



RAPID DEPLOYMENT OF ONLINE MONITORING RESTORES CONFIDENCE IN CRITICAL CRANE WINCH OPERATION

AVT Reliability® supported this offshore marine operator in restoring asset confidence and improving reliability through rapid deployment of real-time condition monitoring, enabling early fault detection and reducing the risk of future unplanned downtime.



THE PROBLEM

A critical crane winch failure on an offshore wind turbine installation vessel resulted in the vessel being docked in Belfast for several weeks. The crane winch is essential for installation activities, and any downtime significantly impacts project schedules, operational efficiency, and costs.

The incident highlighted a lack of visibility into asset condition and the need for a proactive monitoring strategy. A fast, effective solution was required to assess the system condition and enable a safe and timely return to service.

OUR APPROACH

AVT Reliability® responded immediately to the urgent request, arranging an out-of-hours mobilisation to the vessel. A full assessment of the crane winch system was carried out to identify critical monitoring points and determine the most appropriate solution.

A tailored condition monitoring strategy was developed, focusing on key components including drive shaft bearings and the gearbox. Within days, AVT supplied and installed the Machine Sentry® Online system.

The system was configured to provide continuous vibration and temperature monitoring, with real-time data accessible both onboard and remotely via AVT's Remote Diagnostic Centre (RDC). This ensured that both vessel engineers and AVT specialists could monitor asset condition and respond quickly to any developing issues.

“Speed was critical on this job. Getting monitoring in place quickly meant the vessel could return to service with confidence and a clear view of asset condition.”

- AVT Reliability Engineer

OUR FINDINGS

The initial failure highlighted the absence of continuous condition monitoring and early fault detection on the crane winch system. Without real-time visibility, developing issues were not identified until failure occurred, resulting in extended downtime and operational disruption.

The installation of Machine Sentry® Online addressed this gap, providing continuous insight into asset condition and enabling a shift from reactive to predictive maintenance.

THE SOLUTION

The implementation of Machine Sentry® Online delivered a robust and scalable monitoring solution. Continuous condition monitoring now allows early identification of abnormal vibration or temperature trends, enabling timely maintenance intervention.

With real-time data and remote diagnostic support in place, the vessel returned to offshore operations with increased confidence in asset reliability and reduced risk of repeat failure.

FOLLOW UP

The system continues to provide ongoing monitoring and diagnostic support, ensuring that any developing faults are identified early. This proactive approach reduces the likelihood of unplanned downtime, supports maintenance planning, and protects critical operational equipment.

The rapid response and deployment demonstrates the value of scalable monitoring solutions in marine environments, where time, access, and operational constraints are critical.

AT A GLANCE

Location:	Belfast, Northern Ireland
Industry:	Marine / Offshore Wind
Process:	Offshore Turbine Installation
Equipment:	Crane Winch System
Products:	Machine Sentry® Online
Services:	Rapid deployment, condition monitoring, RDC support
Financial Impact:	> €100,000 potential cost exposure mitigated

**Need advice?
Contact our experts**

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