

# TRUCONNECT Wire Rope Monitoring



# Continuous knowledge of rope condition

The wire rope is one of the fastest wearing load-bearing components on a crane. During a typical inspection of a wire rope, only the outer wires and strands can be visually inspected. Magnetic NDT measurements can be performed to analyze the condition of the internal wires, but this requires crane shutdown and a specialist to perform the inspection.

TRUCONNECT Wire Rope Monitoring provides a continuous view of rope condition through the use of sensors installed on the wire rope. It reveals both visible exterior defects as well as internal defects that are not detectable with a visual inspection.

## A complement to Remote Monitoring

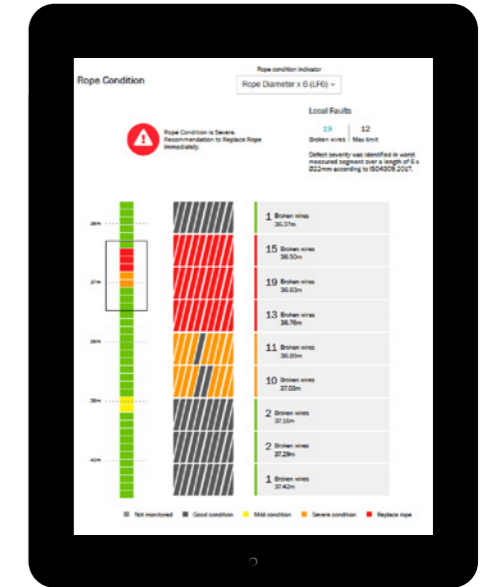
Wire Rope Monitoring is designed to supplement TRUCONNECT Remote Monitoring—which collects crane condition and usage data and provides alerts of certain anomalies. Remote Monitoring data is used in maintenance planning and in predicting possible component or equipment failure.

## Predictive maintenance and Wire Rope Monitoring

Preventive maintenance is essential for keeping your cranes in top operating condition. TRUCONNECT Remote Monitoring along with a Konecranes service program provides valuable usage and operating data that can be used along with inspection and maintenance information for a comprehensive view of equipment maintenance needs and performance.

Incorporating predictive maintenance elements—including TRUCONNECT Wire Rope Monitoring—into a service program can further optimize maintenance activities, reduce unplanned downtime and improve equipment safety, productivity and lifecycle value.

Predictive maintenance utilizes condition monitoring, advanced inspections and data analytics to predict the need for maintenance due to component wear or fatigue or other factors such as environmental stresses. Recommendations to repair or replace components are driven by a combination of preventive and predictive maintenance findings.



## Rope data – online, any time

Real-time wire rope condition information is available on the Konecranes Portal. Color-coded graphs let you quickly see if your rope is in good condition, needs attention or should be replaced immediately.

An indication of defects on different parts of the rope helps you identify which parts of the wire rope have started to wear out and may need further attention. Wire rope replacement limits are based on the ISO4309:2017 Standard (Annex C) and extensive test data and other statistical data from Konecranes.


Looking at the trend display gives you an aggregated view of rope condition over time. This information helps estimate the remaining wire rope lifetime and can aid in maintenance planning.

## Benefits of Wire Rope Monitoring

- Know the condition of your wire ropes in an instant.
- Helps you discover defects that are not visible in periodic inspections.
- Assists in reducing the risk of load drop and other safety risks related to wire ropes.
- No shutdown needed to inspect rope condition.
- Offers the potential to optimize rope change intervals and plan ahead for wire rope replacements during a planned shutdown.
- Rope safety can be monitored remotely without interrupting crane operations.



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