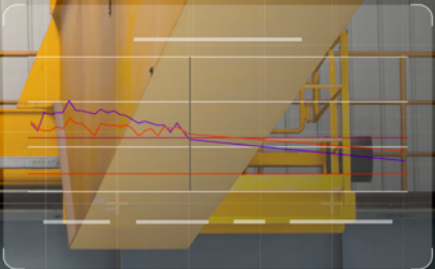
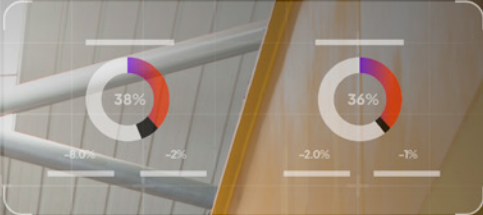


TRUCONNECT Brake Monitoring





Continuous knowledge of brake condition

The hoist brake is one of the most critical wearing components in a crane, and in heavily used cranes the service lifetime of brake wearing parts may end sooner than expected. If a brake issue arises, additional inspections require crane shutdown and provide only a snapshot of the current condition of the brake.

TRUCONNECT Brake Monitoring gives you continuous real-time data on the brake air gap condition and different faults based on the control signal and measurement of the required opening current. As the brake lining wears—the required opening current increases.

Brake Monitoring provides valuable information for brake maintenance planning. Data can indicate brake maintenance needs in advance and shows if air gap adjustment is proper after installation. The data also provides a clear picture of brake overhaul intervals and replacement history, especially with unexpected brake problems.

A complement to Remote Monitoring

Brake 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.

➔ Benefits of Brake Monitoring

- Provides visibility into brake condition between normal inspection visits.
- Helps minimize the risk of load drop with the detection of brake faults.
- Helps you avoid unnecessary brake disassembly for inspection.
- Enables predictive brake maintenance.
- Assists in further optimization of maintenance activities to reduce unplanned downtime and to improve equipment safety, productivity and lifecycle value.

Brake information on Konecranes Portal

Brake Monitoring information is made available on the Konecranes Portal in easy-to-read graphs. Brake fault alerts and data on critical conditions are continuously delivered to the portal and by email, letting you respond quickly to brake issues and plan maintenance in advance. Having visibility into how fast the brake is wearing and its remaining service life helps you avoid unnecessary brake disassembly and less downtime.

01 ESTIMATED SERVICE LIFE

Real time status indicator summarizes brake estimated service life. A brake replacement should be scheduled when the remaining brake life is at 30% or below.

02 BRAKE AIR GAP CONDITION

Real time status indicator summarizes brake air gap status and safety. Brakes need special attention and maintenance planning when the value falls below 30% or when the value is dropping rapidly. When the value is below 15%, brake air gap and friction material must be inspected.

03 BRAKE AIR GAP

Shows current brake air gap status.

04 BRAKE MAINTENANCE

Indicates when the next brake maintenance is needed.

07 SERVICE LIFETIME TREND

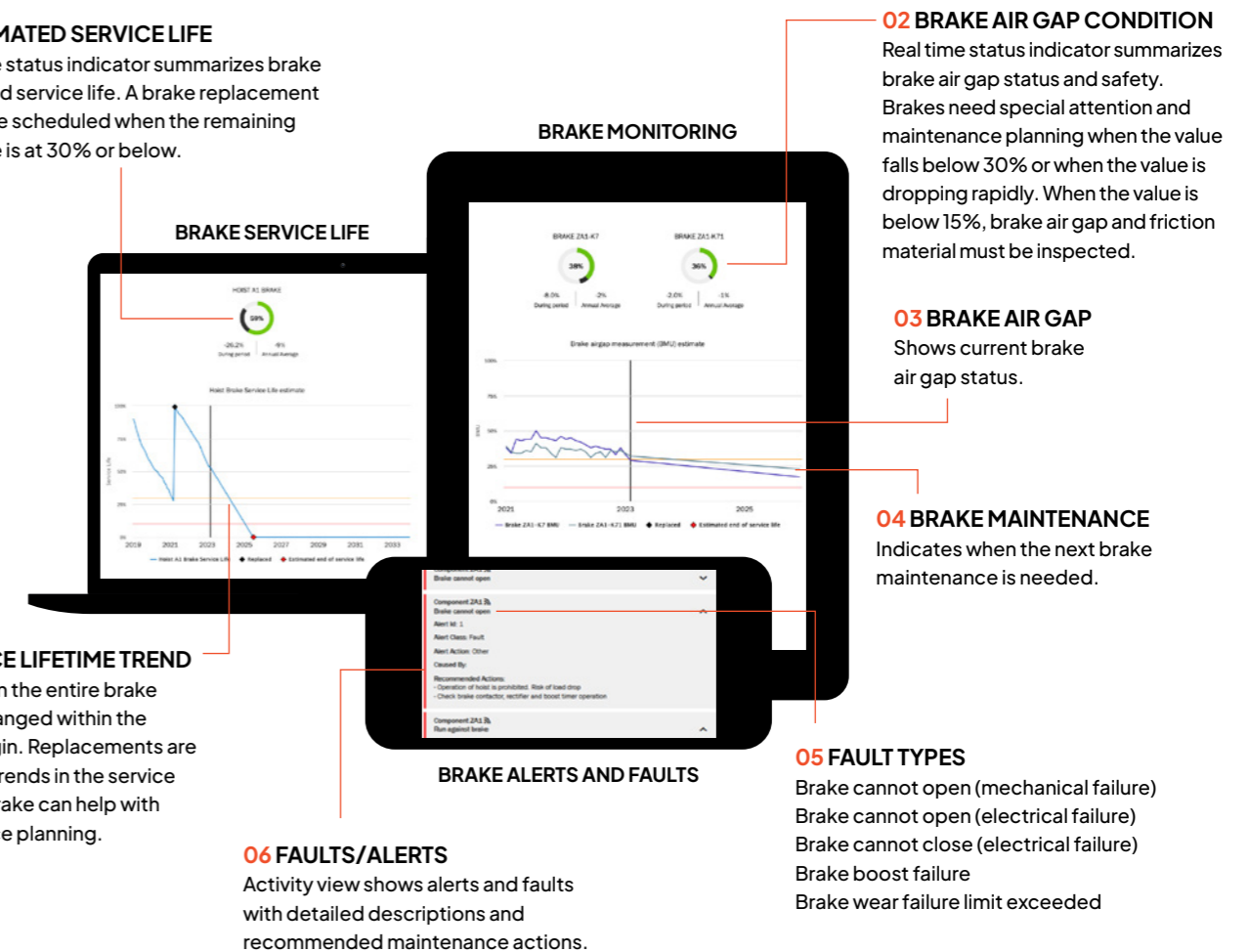
Shows when the entire brake must be changed within the safety margin. Replacements are noted and trends in the service life of the brake can help with maintenance planning.

06 FAULTS/ALERTS

Activity view shows alerts and faults with detailed descriptions and recommended maintenance actions.

05 FAULT TYPES

- Brake cannot open (mechanical failure)
- Brake cannot open (electrical failure)
- Brake cannot close (electrical failure)
- Brake boost failure
- Brake wear failure limit exceeded



Predictive maintenance and Brake 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 Brake 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.



Konecranes is a global leader in material handling solutions, serving a broad range of customers across multiple industries. We consistently set the industry benchmark, from everyday improvements to the breakthroughs at moments that matter most, because we know we can always find a safer, more productive and sustainable way. That's why, with around 16,600 professionals in over 50 countries, Konecranes is trusted every day to lift, handle and move what the world needs. In 2023, Group sales totaled EUR 4.0 billion. Konecranes shares are listed on Nasdaq Helsinki (symbol: KCR).

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TRUCONNECT and the Konecranes Portal have been awarded ISO/IEC 27001:2013 certification for information security management. The ISO/IEC 27001 certificate demonstrates a commitment to proactively manage the information security of Konecranes digital services and ensure compliance with legal and customer requirements.

KONECRANES Moves what matters.