KONECRANES®
Lifting Businesses™

TRUCONNECT® REMOTE SERVICE

BRAKE MONITORING

REDUCE THE RISK OF LOAD DROP WITH BRAKE MONITORING

The hoist brake is one of the most critical wearing components in a crane. The brake is looked at during inspections, but with heavily-used cranes, the service lifetime of brake wearing parts may end sooner than expected. Additional inspections also require crane shutdown and provide only a snapshot of the current condition of the brake.

TRUCONNECT Brake Monitoring provides continuous information regarding the wearing friction material, air gap and different brake faults.

YOUR BRAKE DATA, ONLINE – ANY TIME

The data, made available on the yourKONECRANES customer portal, 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. Brake fault alerts can be sent by text message or email, so maintenance planning can be done in advance.

A COMPLEMENT TO REMOTE MONITORING

Brake Monitoring is an addition to TRUCONNECT Remote Monitoring – which uses sensors to collect data such as running time, motor starts, work cycles and emergency stops.

BRAKE MONITORING FOR NEW CRANES OR AS A RETROFIT

The TRUCONNECT Brake Monitoring Unit is delivered with new Konecranes SMARTON and RTG cranes. Retrofits are also available for most Konecranes hoist models.

BENEFITS

- Continuous knowledge of brake condition
- Detects brake faults, reducing the risk of load drop
- Helps you avoid unnecessary brake disassembly for inspection
- Aids in maintenance planning by highlighting maintenance needs in advance, such as unexpected brake wear

HOW IT WORKS

The brake monitoring unit uses a patented method to estimate air gap in an electromagnetic disc brake through measurement of brake opening current.

1 The hoist brake design working period is estimated using the number of hoist motor starts and number of emergency stops issued during lifting/lowering motion. A brake replacement should be scheduled when the remaining brake life is at 30% or below.

2 The estimated service life of the hoist brake is shown in this graph. Replacements are noted and the trends in the service life of the brake can help with maintenance planning.

3 This graph shows opening current value. A value of 90% represents 10% opening current and a value of 0% represents 100% opening current. A 25% increase in value indicates an air gap adjustment or friction material change. For brakes in use, the value decreases gradually. Brakes need special attention and maintenance planning when the value is below 30% or when the value is dropping rapidly. When the value is below 15%, brake air gap and friction material must be inspected.

INDUSTRIAL CRANES

NUCLEAR CRANES

PORT CRANES

HEAVY-DUTY LIFT TRUCKS

SERVICE

Konecranes is a world-leading group of Lifting Businesses™, serving a broad range of customers, including manufacturing and process industries, shipyards, ports and terminals. Konecranes provides productivity enhancing lifting solutions as well as services for lifting equipment of all makes. The Group has 18,000 employees at 600 locations in 50 countries. Konecranes class A shares are listed on the Nasdaq Helsinki (symbol: KCR).

12/2017MH

konecranes.com