

INDUSTRIAL CRANES
NUCLEAR CRANES
PORT CRANES
HEAVY-DUTY LIFT TRUCKS
SERVICE
MACHINE TOOL SERVICE

RETROFITS

KONECRANES[®]
Lifting Businesses™

ADD CURRENT FEATURES AND TECHNOLOGIES TO YOUR CRANE

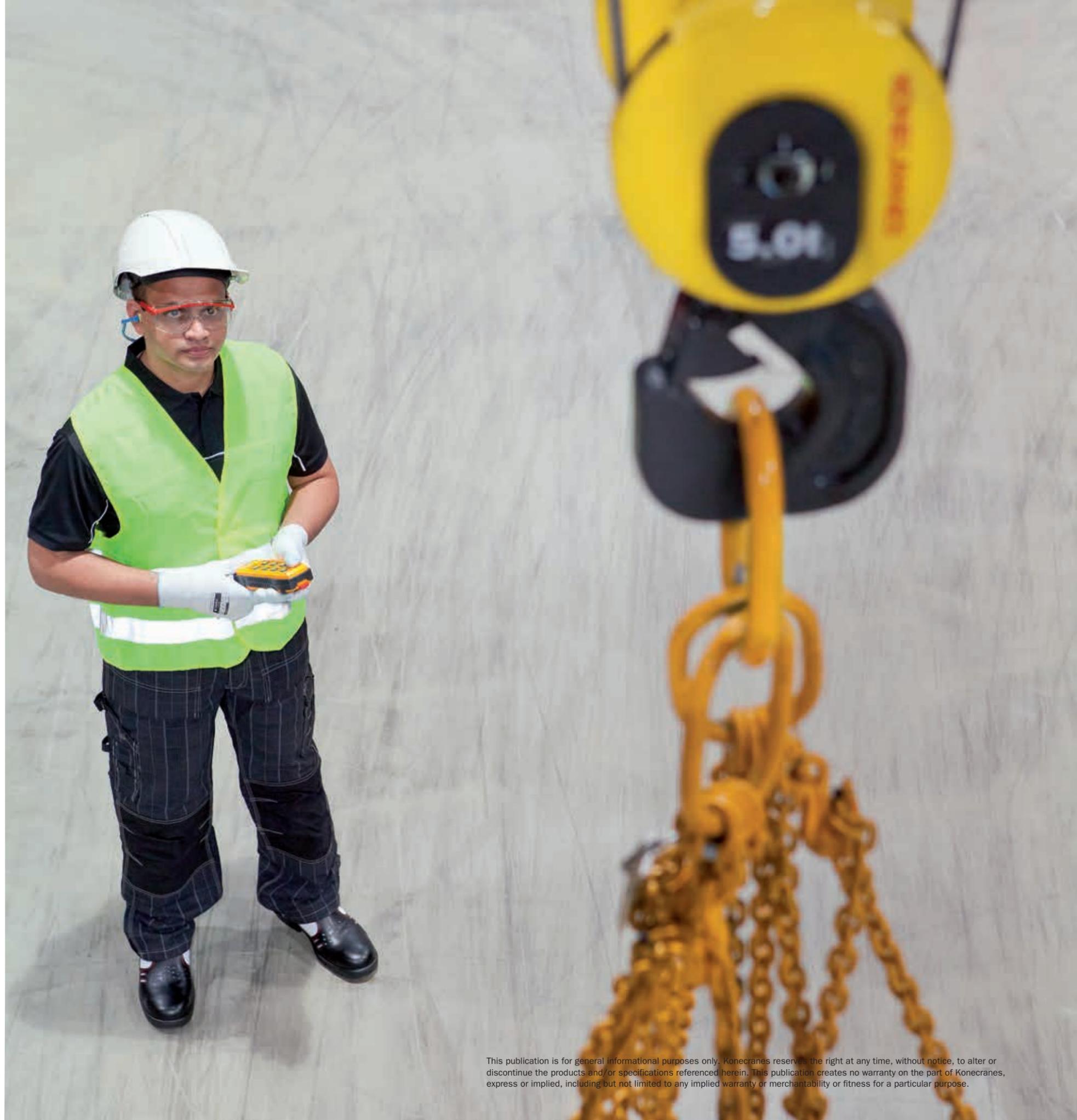


RETROFITS MADE EASY

Retrofits are a relatively easy and economical way to add current features and technologies to your existing overhead crane. Common retrofits are hoist replacements, the addition of radio pendants, LED lighting and traveling drives with inverters. Compared to modernizations, retrofits typically require much less pre-planning and downtime.

Our approach to crane maintenance is centered on Lifecycle Care, a comprehensive and systematic approach to maintenance, supported by world-class tools and processes. Properly timed retrofits can help ensure your cranes maintain the highest Lifecycle Value, maximizing productivity of uptime and minimizing the cost of downtime.

We provide specialized maintenance services and retrofits for all types and makes of industrial cranes, hoists and port equipment. Our objective is to improve the safety and productivity of your operations.



UP TO 60% OF ENERGY SAVINGS WITH LED LIGHTING

An LED Lighting Retrofit can help you save money, provide good lighting and give your crane a modern look.

LED lights last longer

Replacing crane lights can be expensive. Traditional metal-halide or halogen lights have a shorter service life and can suffer from damage due to vibrations. This results in increased costs and less efficient operations. With an LED Lighting Retrofit you get lights that have a much longer service life, and will be far less prone to damage from vibration.

Lighting consumes the most power

Traditional lighting accounts for 50 to 90 percent of electricity used by a crane. An LED Lighting Retrofit can therefore result in a major cost savings in any crane operation.

LED lights provide the same degree of lighting to the working area than standard lights, yet consume little more than one third of the energy. This means that with LED lighting you are able to cut your energy consumption by up to 60% per crane.

Safer and user-friendly lights

Because light distribution in LED lights is more focused, the crane operator is less likely to get blinded by the light when looking at the load. Furthermore, with LED lighting the light is not dispersed laterally but directed where it is needed: on the load and on the workstation or facility.

POWER CONSUMPTION OVER ONE YEAR

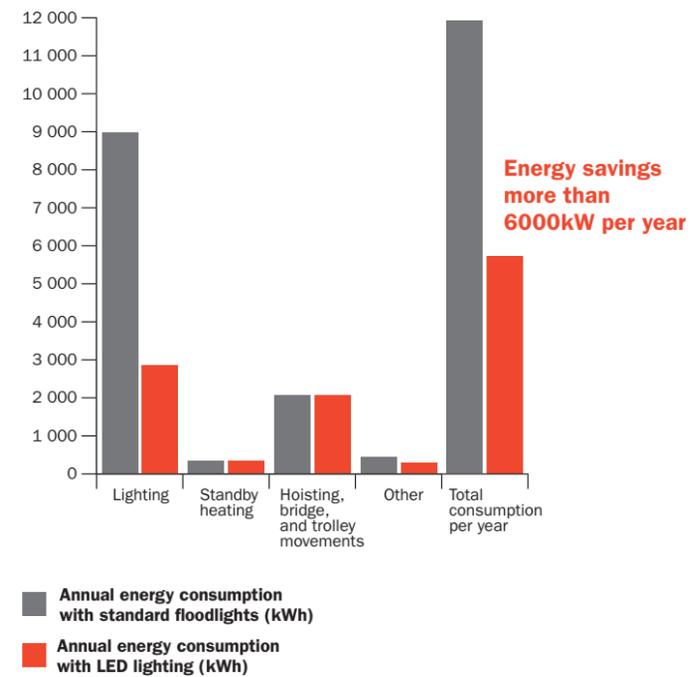
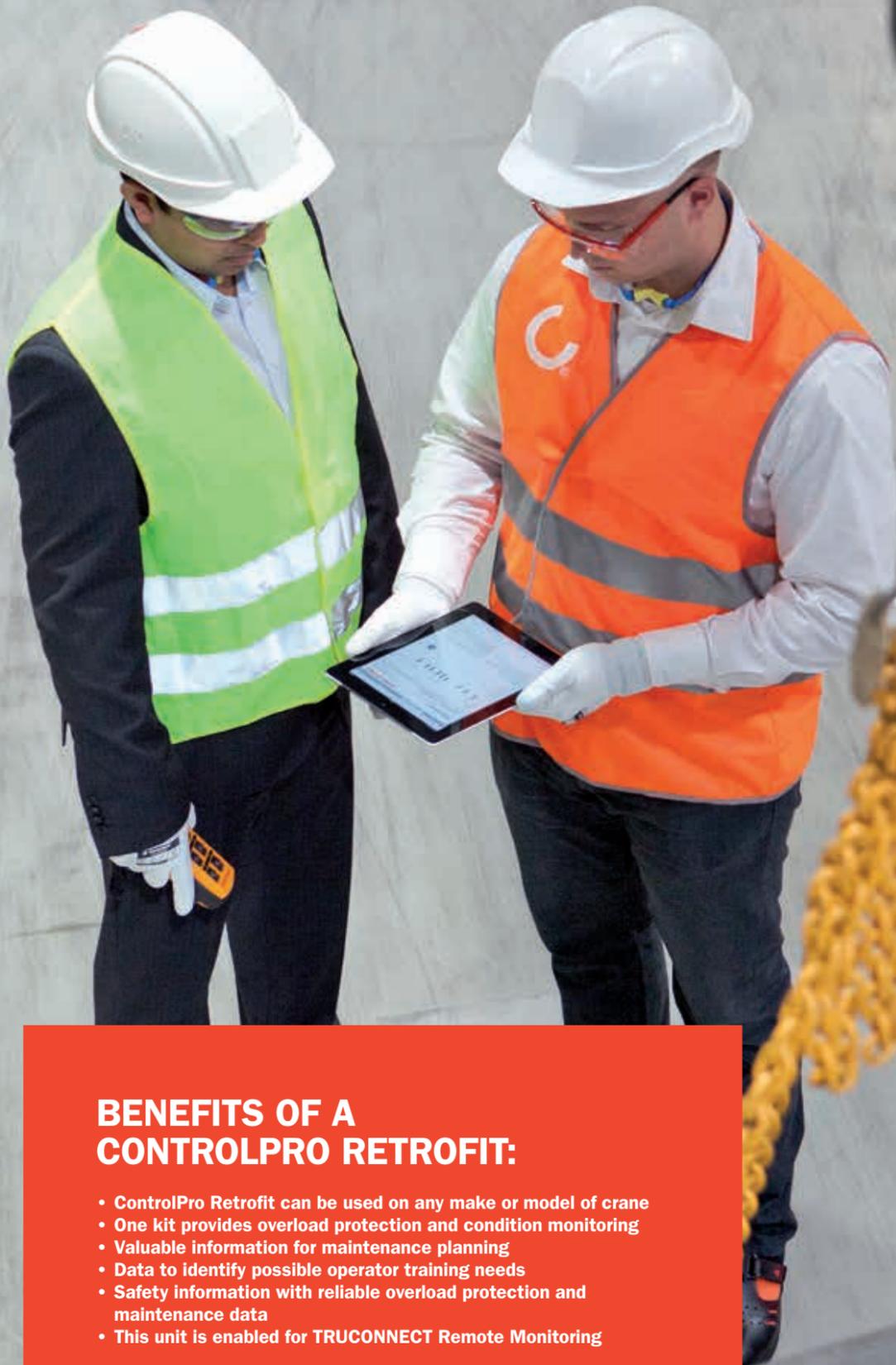


Table represents a 40-ton CXT crane with four lights and usage time of two shifts per day, five days per week.



BENEFITS OF AN LED LIGHTING RETROFIT:

- Lower lifetime energy costs and longer service life
- LED lights improve task illumination
- LED lights can be switched on and off instantly and do not require time for warming up or cooling down
- Easy and quick retrofit of existing lighting



BENEFITS OF A CONTROLPRO RETROFIT:

- ControlPro Retrofit can be used on any make or model of crane
- One kit provides overload protection and condition monitoring
- Valuable information for maintenance planning
- Data to identify possible operator training needs
- Safety information with reliable overload protection and maintenance data
- This unit is enabled for TRUCONNECT Remote Monitoring

INCREASED SAFETY WITH REMOTE MONITORING

With ControlPro, you can add overload protection to any hoist on an overhead crane. It also records crane usage data for maintenance planning purposes. ControlPro is now available as a retrofit package for all cranes, regardless of type, brand or age.

Replacing or upgrading older units

Thousands of ControlPro units have already been installed on different types of cranes to improve the efficient use of the crane. In addition to overloads, the ControlPro Retrofit is also able to capture other usage data from the hoist such as:

Safety-related issues

Emergency stops, overloads and overheating.

Production statistics

Hoist motor starts, work cycles and running hours.

Service life

Hoist brake, hoist machinery and hoist structure.

The data can be used to plan maintenance by linking ControlPro to Konecranes TRUCONNECT® Remote Monitoring.

TRUCONNECT Remote Monitoring modem installation

A TRUCONNECT modem connection can be installed on all cranes with ControlPro units. Remote monitoring makes the usage data from your equipment available through a remote connection and graphical reports can be emailed on a pre-determined schedule or accessed via web portal.

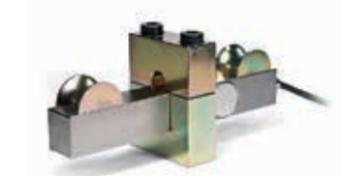
ControlPro Retrofit – primarily used for CU1 monitoring unit replacements.



ControlPro Retrofit in enclosure and with modem connection.



Clamp sensor – used for load measuring.



INVERTER RETROFITS

A Konecranes Inverter Retrofit is an optimal choice to update the traveling inverter of your crane to a new generation version. Konecranes provides pre-engineered inverters specifically designed for crane use.

One-to-one travel Inverter Retrofit

Our one-to-one Inverter Retrofit kit allows for an efficient replacement of your existing unit. The compact size inverter replacements are available to you as a complete turn-key service by Konecranes specialists.

Complete instructions and all needed parts are included for smooth installation.

From contactor to inverter control

Switching to inverter control offers smoother travelling motion which means better load control compared to one or two-speed contactor control.

Newest generation of inverters

The upgradable design makes it easy to add new features for trolley travel. A new inverter can improve the reliability of your crane and make it easier to obtain spare inverter parts.



Trolley and bridge Inverter Retrofit kit.



Trolley traveling Inverter Retrofit for wire rope and chain hoist products.



BENEFITS OF AN INVERTER RETROFIT:

- Available as a pre-engineered retrofit kit
- Fast delivery and fast installation
- Compact inverter size
- Parameters preset and software designed for crane use
- Upgradable design makes it easy to add new features such as stepless control for traveling motions and thermal protection for the motor
- Supported by Konecranes network of spare parts distribution centers
- 1-year warranty when installed by Konecranes

HOIST REPLACEMENT

Has your hoist reached the end of its productive design life? No matter how well maintained, your hoist won't last forever.

Konecranes CXT hoist can be retrofitted onto most cranes. Our pre-engineered hoist retrofits are designed for easy installation, causing minimal disturbance to your production.

CXT hoists improve load handling and simplify maintenance

The CXT hoist has many features that ease load handling and maintenance. With Adaptive Speed Range (ASR), the motor speed varies according to the load. This allows for optimal speed and enhanced safety when handling heavier loads. Its service-friendly reeving design provides improved access to the upper rope sheaves and overload device, making rope changes, rope length adjustments and sheave replacements fast and easy.

Low-maintenance brakes designed to last

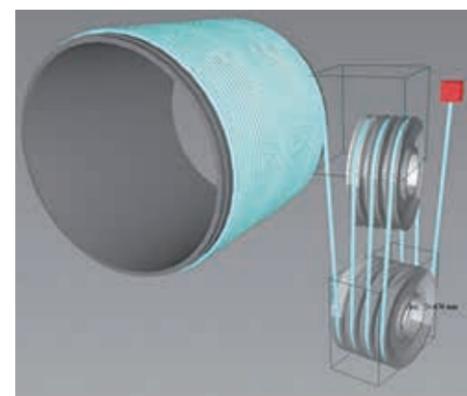
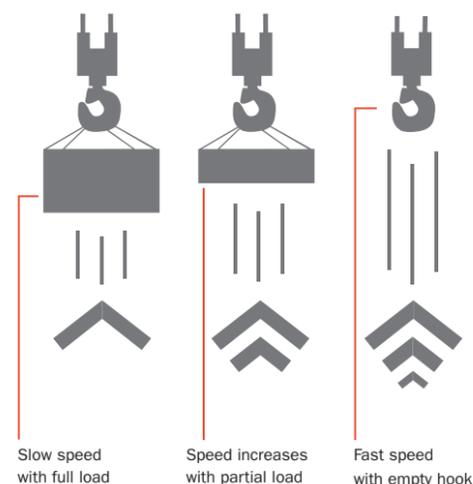
The hoist motor brakes are sealed and dust-proof. Built for low maintenance and trouble-free operation, CXT brakes are designed to require minimal adjustment and built to handle the rigors of industrial lifting.

Motor design for quick maintenance

The unique placement of the motor inside the drum protects the motor from contaminants, while increasing the cooling ability. The design makes the motor and brake easily accessible for maintenance.

ASR and other smart features are available

When ASR is enabled the hoisting speed varies with the load.

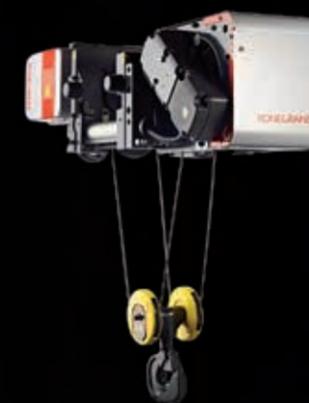


Rope drum and reeving design allows for long rope life.
The patented design of the CXT hoist, with its large drum diameter and small fleet angles, minimizes rope wear.



DOUBLE GIRDER CXT TROLLEY

- For higher loads – capacity up to 80 tons
- Short track gauge and short end carriage means compact outer dimensions
- Versatile design for optimum crane and hook headroom requirements
- Space-saving structure



LOW HEADROOM CXT TROLLEY

- Capacity up to 12.5 tons
- Space-saving outer dimensions to maximize hook approach
- Minimal hook headroom dimension



FIXED HOIST

- Capacity up to 80 tons
- All CXT options available
- Load beam can be provided as an option



NORMAL HEADROOM CXT TROLLEYS

- Capacity up to 40 tons
- Compact outer dimensions, very good hook approach
- Option for curved track and other special applications
- High capacity normal headroom trolley



MACHINERY HOIST

- Capacity up to 10 tons
- Versatile option for hoist and winch modernizations
- Can be used in non-crane applications as well

BENEFITS OF A HOIST RETROFIT:

- Precision controls and faster cycle times increase productivity
- Reduced energy costs
- Engineered for reduced wear and tear, increasing uptime
- Designed for easy maintenance and parts accessibility



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Konecranes is a world-leading group of Lifting Businesses™ offering lifting equipment and services that improve productivity in a wide variety of industries. The company is listed on NASDAQ OMX Helsinki Ltd (symbol: KCR1V). With almost 12,000 employees at 600 locations in nearly 50 countries we have the resources, technology and determination to deliver on the promise of Lifting Businesses™.

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