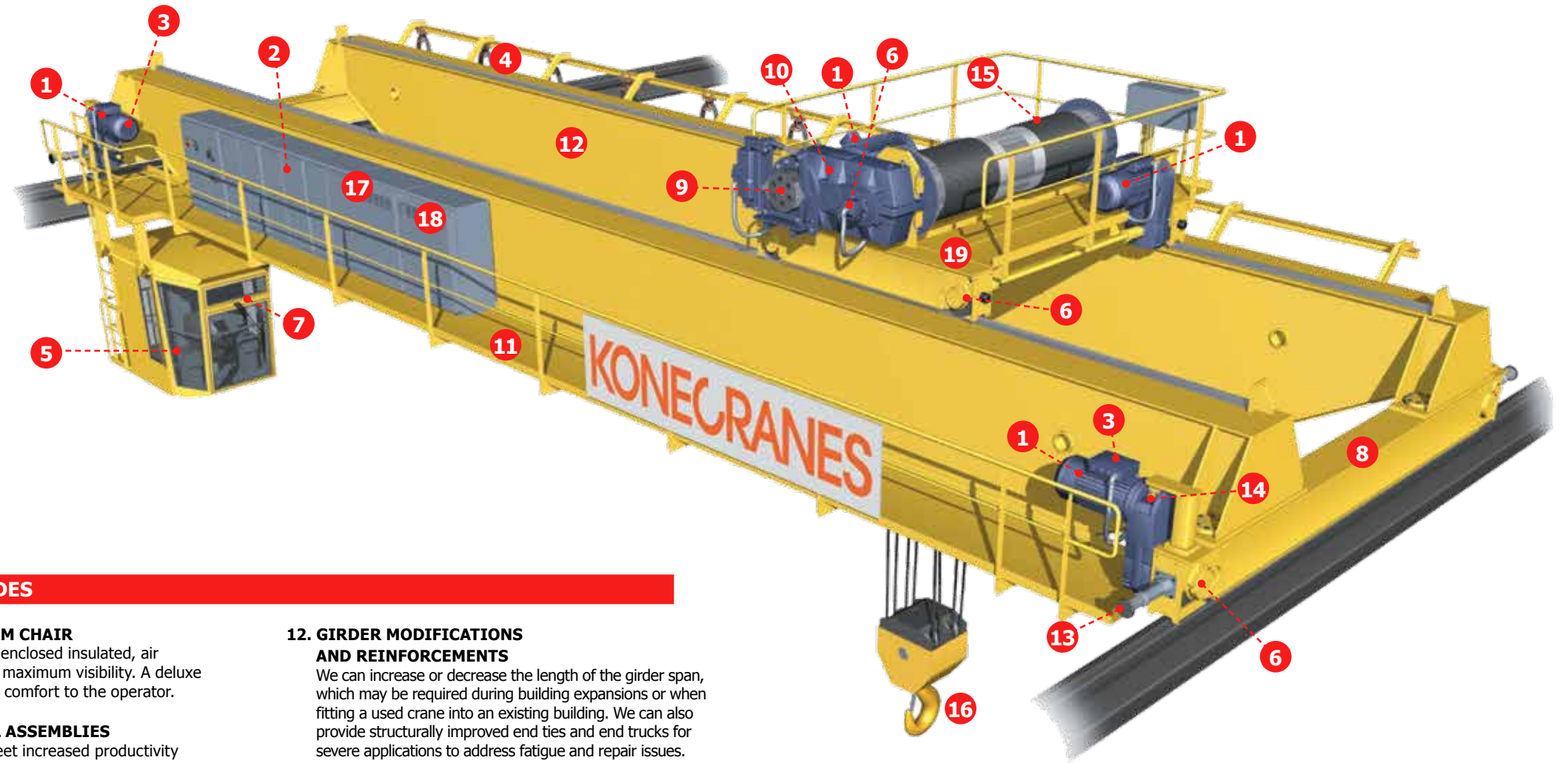


MODERNIZATION SERVICES

# Modernize your crane

Modernizations prolong the economic service life of your crane. They can provide a complete transformation of your existing crane as an alternative to replacing it and give you an opportunity to add current technologies.

The decision to modernize should begin with a Crane Reliability Study. The CRS provides a detailed analysis of your crane in relationship to its application and will help identify the most appropriate system upgrade and corresponding modernization plan.



## ELECTRICAL UPGRADES

### 1. MOTORS

DC and AC long-life motors are designed and built for hard reversing and plugging. Many options are available including AC squirrel cage motor, external blower motor and DC mill motor.

### 2. CONTROL SYSTEM UPGRADE

Upgrade to a variable frequency drive. Air conditioned E-house with variable frequency controls, static stepless and DC controls are available for severe applications.

### 3. BRIDGE DRIVES

Drives can be upgraded with heavy duty foot-mounted gearboxes. Shaft-mounted motor reducers can also be applied to eliminate cross shaft maintenance and alignment issues.

### 4. FESTOON SYSTEM OR ENERGY CHAIN

Festoon systems increase safety by replacing wear-prone open conductors and collectors. Energy Chain protects the power and control cables from mechanical wear and reduces the risk of external damage.

### 5. RADIO CONTROL

Floor-operated controls allow the operator ease of mobility and a good view of the load. The controls can be equipped with real-time load data.

### 6. LIMIT SWITCHES

Prevent the bottom block from damaging the drum. Bridge and trolley travel limit switch protection. Collision avoidance systems, zone control and automation.

## MECHANICAL UPGRADES

### 7. ERGONOMIC CAB AND ARM CHAIR

An open cab on the crane or enclosed insulated, air conditioned cab help provide maximum visibility. A deluxe console chair offers optimum comfort to the operator.

### 8. END TRUCKS AND WHEEL ASSEMBLIES

Anti-friction bearings help meet increased productivity demands. Konecranes high-capacity end trucks are designed to lengthen wheel life and improve crane tracking.

### 9. SELF-ADJUSTING, BONDED NON-ABESTOS, SELF-ALIGNING BRAKES

These brakes reduce maintenance by automatically compensating for lining wear. DC AISE spring set, electric release or AC impulse-actuated shoe brakes are available.

### 10. HOIST GEAR CASE

Upgrading lift capacity. Shafts rotate on spherical bearings encapsulated in machined retainers. Helical/spur gearing is precision machined and heat treated for long life.

### 11. PLATFORMS

Increase safety and maintenance accessibility by adding or improving platforms.

### 17. TRUCONNECT REMOTE MONITORING

A TRUCONNECT modem connection can be installed on all cranes with ControlPro units. TRUCONNECT Remote Monitoring uses sensors to collect data, such as running time, motor starts, work cycles and emergency stops, providing visibility to crane usage. It also provides brake and inverter monitoring.

### 12. GIRDER MODIFICATIONS AND REINFORCEMENTS

We can increase or decrease the length of the girder span, which may be required during building expansions or when fitting a used crane into an existing building. We can also provide structurally improved end ties and end trucks for severe applications to address fatigue and repair issues.

### 13. BRIDGE BUMPERS

Protect the crane and the building by installing a spring, hydraulic or rubber bridge bumper.

### 14. BRIDGE BRAKES

Brakes for cab/floor operation. Includes electric shoe, electric/hydraulic shoe, DC spring set, or electric release disc brake.

### 15. HOIST DRUMS

Redesign drums for upgraded capacity and performance.

### 16. BOTTOM BLOCKS

We offer bottom blocks in a variety of sizes and configurations, including rotating blocks or specially-designed blocks for severe duty applications. We also offer common wear items such as hooks, frames, pins, sheaves, bearings and safety latches.

### 18. SMART FEATURES

Smart Features are Konecranes-designed add-ons that work together or individually to improve safety, cycle time and load positioning. They add intelligence to your crane with purpose-built software and hardware. Smart Features include Sway Control, Assisted Load Turning, End Positioning and more.

## COMPLETE TROLLEY UPGRADE

### 19. SMT TROLLEY

The SMARTON® trolley is built for heavy process industries and applications. The motor, gearbox and control unit are designed and manufactured in-house for excellent lifting performance and long life. The flange-mounted motors have integrated brakes, which support the proper alignment of the machinery.

### UNITON™ TROLLEY

The UNITON trolley is available with multiple configurations and a wide range of hoisting speeds, load control features, and load and duty class options. With a lifting capacity of up to 160 tons on a single trolley (320 tons with two trolleys), UNITON can be built to meet project-specific requirements in almost any application. Its modular design and construction make maintenance and part replacement easy.

### CJ TROLLEY

The CJ trolley is designed for heavy use in industrial applications. Its greatest attribute is its ease of maintenance. The foot-mounted gear case is integrated into the trolley, which enables easy access to the gears, shafts and pinions without needing to remove the entire trolley.

