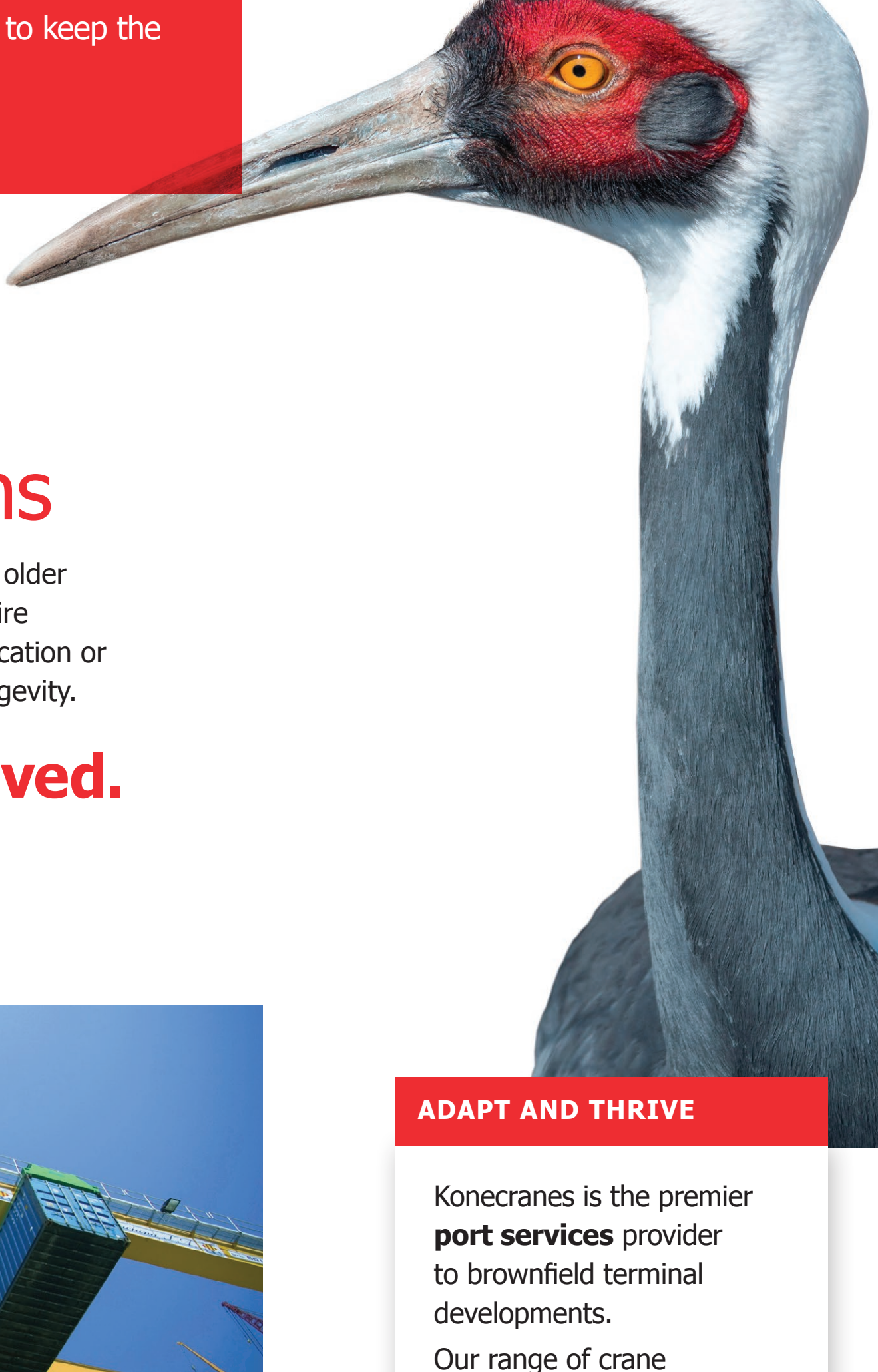


HOW HAS The Sandhill Crane become the oldest bird species on earth?

They are engineered to endure. Over the last 10 million years only slight **adaptations** to their wingspan have been required to keep the species thriving.



Crane Modernizations

Similarly, the steel structures of most older cranes retain their integrity, and require mostly small adjustments in reach, location or machinery to increase the crane's longevity.

Endurance. Evolved.



AB
Any Brand

This technology can be applied to all Konecranes STS cranes, as well as other crane brands.

ADAPT AND THRIVE

Konecranes is the premier **port services** provider to brownfield terminal developments.

Our range of crane modernizations will enable your fleet to adapt to a fast-changing environment.

Welcome to your **evolution**.

Small, incremental changes that enable existing fleets to continue to adapt and thrive.

STS Boom Extension

**Fast and cost-efficient
alternative to buying
new equipment.**



EQUIPMENT

This technology can be applied to all Konecranes STS cranes, as well as other crane brands.

AB
Any Brand

STS/GU
Ship-to-Shore
Grab Unloader

Image: Port of London Authority



THE AGE OF MEGA-VESSELS

- There are currently 71 vessels with 20 000 – 23 900 TEU capacity in operation
- Beam lengths up to: 62m/200ft
- Boxes stacked up to 10 high on deck, and span at least 23 rows
- An estimated further 29 are scheduled for delivery 2021/2022.

BENEFITS

- Service larger vessels at reduced cost and environmental impact
- Broader appeal to shipping customers
- Reduced risk of collision with vessel elements (radar, antennae etc.), and reduced insurance cost
- Option to upgrade to modern environmental, health and safety regulations
- The crane is rigorously inspected prior to boom extension, this process:
 - Can identify weak points and cracks
 - Reinforcement of these points will prolong the life of the crane by between 1-2 million movements.

HOW IT WORKS

- The process begins with a rigorous crane inspection followed by a feasibility and site study.
- Design and modelling simulation ensures entire operation maintains rigidity of boom structure.
- In most cases STS is relocated and gantry cable reel is disconnected.
- The boom is cut, new boom extension is located, aligned and welded.
- New rails are installed and welded to the existing ones.
- Boom is lifted.
- Crane is relocated back into operations and the gantry cable reel is reconnected.



WHAT YOU NEED TO KNOW

- **Included in Scope:**
 - Modification of the front stay if necessary
 - Welding new rails
 - Relocating limit switches and lighting system.
- **Not Directly Included in Scope:**
 - Moving the crane from quay to a site area and vice versa
 - Change of traveling and boom ropes
- **The crane will be out of operation for an average of 3-4 weeks.**
- **Optional Additions**
This is an optimal time to perform additional enhancements with no additional time delay.
 - Electrical drive modernization
 - Crane monitoring system
 - Spreader trim, list and skew
 - Snag load protection
 - Boom collision prevention
 - Gantry collision prevention
 - STS raising

SELECTED REFERENCES



| Year | Customer/Location | Quantity |
|------|---------------------|----------|
| 2017 | FCT / St Petersburg | 3 |

MORE INFO

CONTACT US



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 more than 16,000 employees at 600 locations in 50 countries. Konecranes shares are listed on the Nasdaq Helsinki (symbol: KCR).

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