Kuenz: innovative and efficient

Kuenz offers solutions for container transfer and handling in intermodal operations – by rail, road or river. We also offer automated stacking cranes for harbour and rail yard operations, including our own custom designed and manufactured spreaders.

Due to numerous successful Kuenz installations at intermodal terminals, Kuenz is today the market leader in Europe and North America. High performance, reliability, low operating and maintenance costs, careful handling of containers and goods – in particular fragile and dangerous goods – are the main criteria for choosing the proper handling solutions we aim to offer every one of our customers.

Kuenz container cranes perform day by day in a fail-safe manner. To ensure that we maintain that level of performance well into the future, Kuenz sets value on the highest product and service quality, as well as on the highest stage of our engineering efforts. Kuenz develops, designs and manufactures all of the main components needed in container handling; the hoist, the patent-registered gantry drive, spreader and more in house, which guarantees a maximum level of safety and efficiency for the customer.

Intermodal barge cranes

Our rail mounted container gantry cranes are designed as rigid one or two-girder bridges and therefore enable a wide track width and cantilevers. The steel construction of the gantry consists of a hinged post, a fixed post, and the main girders with suspension. The hoisting rope reeving for the container hoisting gear is executed as a rigid rope-tower. This system enables swing-free travel in gantry and trolley direction, as well as with the slewing gear.

High availability

Our in house developed and supported crane management system (CMS) with integrated remote fault finding function guarantees optimised support for maintenance and operation. Systems for noise protection for night operation have also been successfully implemented. Efficient handling with Kuenz is consequently ensured.

VAN BERKEL BARGE CRANE

Aerodynamic girder

Kuenz always aims to improve its container cranes. The latest innovation that Kuenz has successfully implemented is the aerodynamic mono-girder which can be used for river port cranes, regular container cranes in intermodal facilities or stacking cranes.

This totally new design offers less wind resistance which leads to:

- Lower energy consumption (by up to 30%)
- Less and smaller sized components
- Lower wheel load (lower wear of wheels and rails)
- Lighter high-performance crane with lower impact on the infrastructure

The cf (shape coefficient of wind surface) of the aerodynamic girder is approximately 0.5 which makes it four times less than those of a conventional square box girder. This innovative technology has an impact on further crane parts such as the portal, or trolley, which is suspended. If we consider now the container crane in its whole (portal, aerodynamic girder and trolley) that means up to 50% less of the surface is exposed to the wind.

Directional travelling mechanism

Another technical feature that brings huge benefits to our customers is the directional travelling mechanism that has been successfully implemented on all of our container cranes since 2007. A wheel's lifetime is affected by:

- The crane's misalignment during travelling due to skewing forces
- The rail track and crane tolerance (rails alignment)
- Influences from the elements

The Kuenz travelling unit is automatically swivelling around a vertical pivot axle which leads to:

- Lower horizontal forces
- Optimal alignment (vertical and horizontal) to the crane's rail track even in case of irregularity
- Better transmission of forces due to arrangement of the side rollers

Technical Data:
Capacity main hoist: 37t
Capacity auxiliary hoist: 2t
Track width: 41m
Cantilever fixed column: 20m
Cantilever hinged column: 16m
Lifting height total: 18m
Lifting height over TOR: 15m
Length of crane way: 260m

Working speeds
Hoist rated load: 0-30 m/min
Hoist partial load: 0-60 m/min
Gantry drive: 0-100 m/min
Trolley drive: 0-140 m/min
Slewing: 2 rpm

Project milestones
Signing of Contract: October, 2014
Delivery: May, 2015
Handover: August, 2015

- Maintenance free mechanical technology
- Less wear, meaning a longer lifetime of wheels and rails

Travelling gear connection
This features:

- Maintenance free connection between bogies and travelling gear
- Fast and easy maintenance of connection between travelling gear and wheel
- Fast and easy disassembly even after many years of operation

The features are under Künz patent.

About the organisation

Kuenz, an Austrian based company was founded in 1932 by Hans Künz and is still a 100% family company. The company started out manufacturing tower cranes and then focused on container cranes - RMGs - mainly for intermodal terminals and river ports in the early 1970s. Kuenz is now a market leader in Europe and North America, thanks to its technical know-how, experience and high-end crane quality. With automation being more and more important nowadays, Kuenz has received large orders for automated stacking cranes in recent years. Other Kuenz's strengths are its ability to control the whole process from design, production, assembly and commissioning, as well as its dedication to provide customers with the best solutions for their terminals. Kuenz is a worldwide well-known manufacturer of hydropower plant equipment. It employs approximately 400 people; more than 25% of which are engineers.

Enquiries

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