

# world of rope

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TRAIN IN SYDNEY RUNS BETTER WITH CASAR PARAPLAST

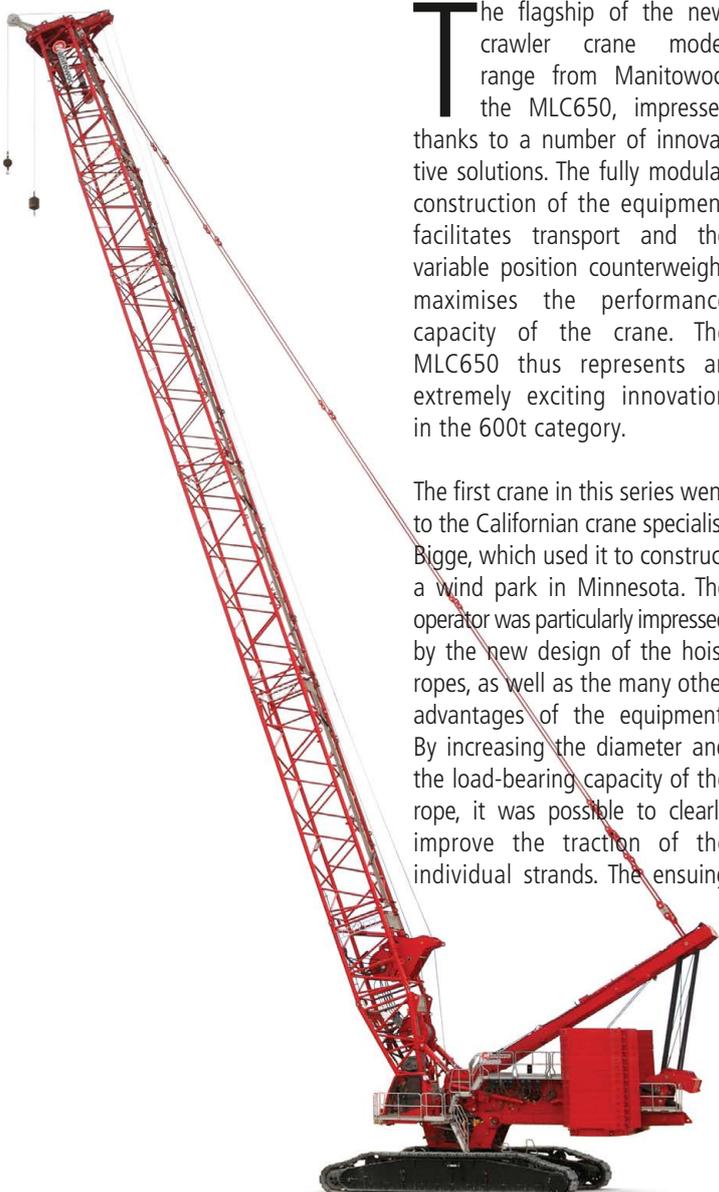
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LANKO®DEEP AHC – OTC SPOTLIGHT ON NEW TECHNOLOGY AWARD

## CASAR Doublefit proves its mettle on the new Manitowoc MLC650 crawler crane

The flagship of the new crawler crane model range from Manitowoc, the MLC650, impresses thanks to a number of innovative solutions. The fully modular construction of the equipment facilitates transport and the variable position counterweight maximises the performance capacity of the crane. The MLC650 thus represents an extremely exciting innovation in the 600t category.

The first crane in this series went to the Californian crane specialist Bigge, which used it to construct a wind park in Minnesota. The operator was particularly impressed by the new design of the hoist ropes, as well as the many other advantages of the equipment. By increasing the diameter and the load-bearing capacity of the rope, it was possible to clearly improve the traction of the individual strands. The ensuing



**Andreas Schmeiss**  
WireCo WorldGroup  
VP Global Cranes

Dear Customers,

The turbulent events in the world are unsettling both for customers and markets and this sense of insecurity is unfortunately not conducive to the positive development of our industry. Yet despite this, houses continue to be built, industrial plants are maintained, steel is produced, wind farms are constructed and many other jobs of work are carried out for which rope is absolutely indispensable. I therefore remain optimistic and continue to place my trust in the dynamic strength of the market. The refinancing of the capital structure of our parent company WireCo is pending and, following an in-depth investigation into our company and the future prospects of the rope industry, the Canadian financial investor ONEX has decided

to make a substantial financial investment in us. And last but not least, it was our power of innovation and global presence that persuaded ONEX to take this decision, and it is with these two points, which stand for product development and comprehensive service that we wish to convince you, our customers and partners, too. Feel free to contact us. We are always happy to help.

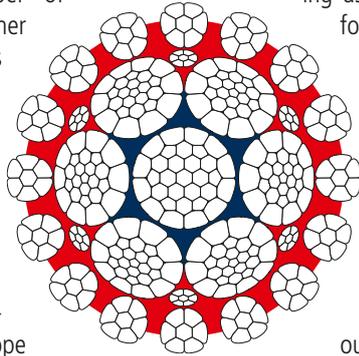
Sincerely,

*Andreas Schmeiss*

Andreas Schmeiss  
VP Global Cranes

reduction in the number of reeving facilitated higher hoisting speeds and thus considerably reduced the construction time for the wind farm.

In such a situation, the 32 mm CASAR Doublefit was really able to show off its strengths. The special construction of the rope is ideally suited to such challeng-



ing use. The very high breaking force of the rope is achieved with standard strength wires, whereby the rope remains extremely flexible and achieves high bending cycle results. The hammered surface is extremely smooth and thus prevents nicks that could damage the outer strands as well as negative imprints on the rope sheaves

and drums. The new design has also proved to be extremely resistant to axial rope deformations in multiple layer spooling.

The results from practice thus confirm the earlier tests in a most impressive manner.

## 5S in assembly

Following the reports in our newsletters No. 6 / January 2015 and No. 9 / October 2015 on the incremental introduction of 5S in the area of rope manufacturing and work scheduling, it is now time to provide you with an overview of the measures that have been introduced in the area of assembly.

Not all the measures can be directly assigned to the 5S methodology, but at the end of the day they all have the same purpose,

namely to make the workplace safer and more efficient and increase the success of the company in the long term. Sorting and systematisation were the first areas to be completely overhauled in line with 5S. During the sorting process, all the work tools were closely examined and any unnecessary tools were identified and removed. The remaining essential tools were given a fixed home, which was selected according to ergonomic principles in the following systematisation step. Lockers and

cabinets were acquired where the tools and scanners could be safely housed. This reduces the time spent in searching for tools and cuts the transit and transport time to a minimum. Additional lockers and hooks in the assembly halls enable employees to store their personal belongings and protective clothing securely and close to their place of work, so they can access them quickly at any time. The risk of falls due to tripping over objects left lying around has thus been minimised.



Also, the more than 500 different types of end connections that are held permanently on site for our customers were given new storage places in the form of shelves. The avoidance of out-of-stock situations has been optimised by this. As well as the end connections that we hold permanently on site, there are, of course, further special solutions for end connections. A newly installed lathe ensures that thimbles can be drilled out and chamfered as required. This reduces time and transit, since thimbles previously had to be taken from assembly to the metalworking shop and back again for such work to be carried out. This can now be carried out directly in assembly. A prestretching bench has also been installed, where ropes can be cut to length under tensile load or the complex multi-strand ropes can be completed; this ensures that when several ropes are fed into an end connection they have precisely the same length, so that they bear equal tensile loads.

The old ovens with gas burners, which were used for the manufacture of hot casting end connections, have been replaced by modern electric ovens; these are both safer and more energy efficient. A newly acquired ultrasound cleaner will be used in the future to clean the grease and dirt from the open wire brushes before casting, and to prepare the brushes for casting. This should facilitate quicker cleaning whilst at the same time it is good for the environment, since more environmentally friendly cleaning liquids can be used. A mobile casting platform also facilitates casting directly at the machine in the rope works, whereby the transportation of heavy reels can be kept to a minimum.

The signage for the walkways, transport routes and working surfaces in assembly was also reviewed. The walkways for the dispatch drivers are now marked with a yellow pedestrian symbol. Warehousing areas have also been given a yellow symbol and areas that serve as work preparation spaces have been marked in blue; restricted areas with increased risk are marked in red. Special storage areas for reels, which in the past always held the risk that the reels could roll out, have also been marked in yellow, but with a yellow metal frame that prevents the reels from rolling out and also minimises



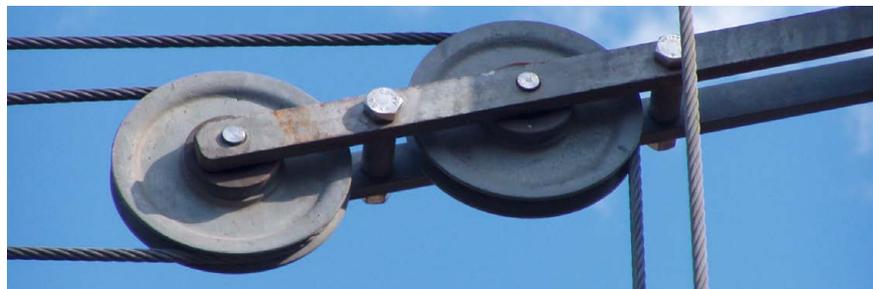
the risk of stumbling due to the bright colour.

New reelers mounted on roller bearings simplify the handling of large reels on the reelers and reduce the amount of power required and the risk of injury. New investments are planned for the near future, namely the acquisition of an unwinder with brakes for large and heavy reels. Also, the

project for laser measurement of the length of our ropes is already in its final phases and it will not be long before it is integrated into the work procedures in assembly. As you see, much has been done to meet your customer wishes in a timely manner and to offer you a qualitatively high-value product.

# Train in Sydney runs better with CASAR Paraplast

The Red Continent with its enormous distances places huge demands on the transport of goods and people. The majority of these long distances are covered by diesel-driven engines pulling multiple wagons known as road trains. In the large cities on the coast, however, it makes more sense to electrify the stretches of railway, in order to be able to offer a more environmentally friendly means of transport. Sydney, the capital of the federal state of New South Wales and one of the largest cities in Australia, has a highly comprehensive rail network as well as the relevant infrastructure required to generate the electricity to power the trains of their operator, Sydney Trains. An important criterion for safe and uninterrupted operation is the correct tension of the overhead lines. To ensure this, weights hung on a steel rope pre-stress the overhead lines via an arrangement of pulleys. However, small but sometimes high-frequency movements and



vibrations occur due to use and contact with the current collectors, as well as to changes in length due to the heat generated. Thanks to CASAR Paraplast (12 mm diameter), the life of these tension cables has been clearly increased. The double parallel quality in conjunction with the thick plastic layer between the core and the outer strands that are typical for CASAR as well as the robust regular lay offer the best conditions for the optimum life of the rope. Sydney Trains are serviced by our Australian dealer A. Noble and Son Ltd., which produces the

corresponding tension cables and also provides these sets on demand.

A. Noble and Son Ltd.'s technical sales representative Kath Darr takes good care of the customer.





# Lanko<sup>®</sup>Deep AHC – OTC Spotlight on New Technology Award

Lankhorst Ropes' Lanko<sup>®</sup>Deep AHC rope, as an integral of the Soft Rope System, has been selected as a winner of an OTC Spotlight on New Technology award at this year's OTC. An outstanding achievement!

Lanko<sup>®</sup>Deep AHC is based on Dyneema DM20 XBO synthetic filament optimized for cyclic bending with a proprietary rope coating technology. The new rope has 12 stranded braids where each strand is a three-strand rope. This construction, combined with the DM20's XBO coating, helps reduce the tension required to bed-in the rope, as well as reducing internal heating and abrasion. In addition, the rope can be inspected and is also repairable, it is an innovative solution for deepwater deployment.

As an integral part of the Soft Rope System, Lanko<sup>®</sup>Deep AHC rope addresses two issues that have inhibited the deployment of subsea processing equipment in deepwater

(>1,300 m water depth): the self-weight of the steel wire rope, and the ability to store and spool long lengths of fibre rope on a winch. Where the self-weight of the steel wire exceeds 40% of the total deployment weight, the Soft Rope System provides a practical alternative.

Lanko<sup>®</sup>Deep offers significant operational and environmental benefits compared with steel wire ropes. Operationally the ropes are easier to handle, and allow engineers to lift and deploy the maximum load without the need to factor in the self-weight of steel wire. Moreover, the Soft Rope System enables the use of smaller vessels of opportunity, and less powerful winch technology, which in turn reduces the amount of fuel required, providing both environmental as well as financial benefits.

NEXT ISSUE WILL BE PUBLISHED IN

## OCTOBER 2016

### PLANNED TOPICS:

- CASAR ACCELERATES THE PRODUCTION
- INTERVIEW WITH THE NEW QUALITY MANAGER OF CASAR
- REPORT ABOUT THE MINING FAIR: MINE EXPO

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# CASAR<sup>®</sup>

A WireCo<sup>®</sup> WorldGroup Brand