

world of rope

published by CASAR

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WireCo Crane Center in Gouda officially ISO 9001-2008 certified

After document review in December 2014 the WireCo Crane Center received the ISO 9001:2008 certificate in January. The photo shows the team involved, incl Lloyd's Register auditor and bureau IMR-staff helping us to get the certificate quickly.

This will open the door to service more customers through the Crane Center. From WCC side

Angelo Tanzarella, technical manager and Ellen Pauw, facility manager, made an excellent job, spending many free weekends to obtain the certificate in a challenging 3-month time frame. Next step in certification for WCC will be to qualify for the API Monogram Program "Alternative Marking of Products License Agreement" which is important to serve properly the oil and gas related industry.



José-Luis Gramaxo

WireCo WorldGroup
SVP-Chief Commercial Officer

Dear Customers,

As you all know we started with the WireCo Crane Center in Gouda, the Netherlands, in 2014. So far we have been successful in achieving our goals: being able to supply our customers in 24 hours or less and, at the same time, being able to provide a faster service to all of our cranes customers around the world that are serviced by the crane center in Gouda. A lot has been done in the last few months. As our organization has been fine-tuned and improved, we can continue to improve our technical leadership concerning the use of rotation resistant ropes on cranes. We still have to do a lot here and our R&D team is working according to schedules that were made to achieve the degree of innovation the lifting markets, we are involved in, need now and in future – without innovation no future.

In the previous newsletter I mentioned that we would soon appoint a new Industry Leader for our cranes activities. We are pleased to announce that Andreas Schmeiss will be our new Crane Industry Leader. Andreas, who will join us on the 1st of May, has many years of experience working in the crane field and welcome Andreas into his new role.

Yours sincerely

José Luis Gramaxo

WireCo Cables Bring NASA Space Capsule Back to Earth

On December 5th, NASA's Exploration Flight Test 1 (EFT-1) of the Orion Space Capsule lifted off from Cape Canaveral Air Force Station. The splashdown in the Pacific occurred 4.5 hours later under parachutes which were supported by WireCo steel riser assemblies – XLT4 Orion, designed exclusively for this project using a patented WireCo rope.

Airborne Systems of North America (ASNA) contacted WireCo WorldGroup in 2010 to design a strong, lightweight rope with more abrasion-resistance than ever seen before. The drogue parachute cables were designed by WireCo engineers Bamdad Pournadian, Kyle Bowland and Tim Klein. The cables were manufactured and tested in WireCo facilities in Missouri. Additional testing was performed at NASA proving grounds in Yuma, Arizona. WireCo worked with ASNA, NASA, Lockheed Martin and Jacobs Engineering during the initial design and development phase.

Orion is NASA's new spacecraft built to carry humans, designed to allow us to journey to destinations never before visited by humans, including an asteroid and Mars. On this un-crewed test flight, Orion tested systems critical to crew safety as it traveled farther into space than any spacecraft built for humans has traveled in more than 40 years.

During the 4.5-hour flight, Orion orbited the Earth twice, covering more than 60,000 miles (96,600 kilometers) and reaching an altitude of 3,600 miles (5,800 kilometers) on the second orbit. That altitude allowed the spacecraft to return through the atmosphere at a speed of 20,000 mph (32,000 kph), which generated temperatures near 4,000 degrees Fahrenheit (2,200 degrees Celsius) on Orion's heat shield.

The flight test validated systems such as Orion's parachutes, avionics and altitude control. All of these systems must perform flawlessly to guarantee safe, successful missions in the future. Although they have been tested extensively on

the ground, the space environment cannot be replicated completely on Earth, and Exploration Flight Test-1 provides critical data that will enable engineers to improve Orion's design and reduce risk for the astronauts it will carry as NASA continues to move forward on its human journey to Mars.

Richard Humiston, WireCo Vice President and Global Market Director-Structures commented, "We are proud to be a part of this important project that will affect the future of space exploration. WireCo has a long history dating back to the 1960s and 1970s when we supplied parachute cables to NASA for the Apollo program."

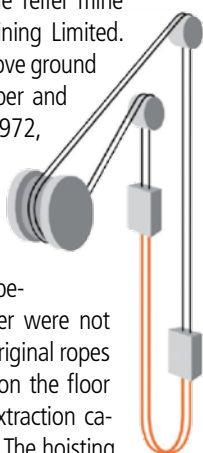




After 6 years of cooperation with CASAR, Telfer draws positive conclusions.

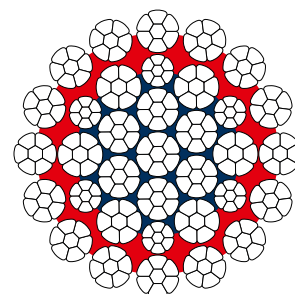
The last 6 years saw a close cooperation between the rope manufacturer CASAR, the distributor Nobles and the Telfer gold mine, based in the Pilbara region in the state of Western Australia. The Telfer mine is wholly owned by Newcrest Mining Limited. Gold and copper are extracted, above ground as well as underground. The copper and gold deposits were discovered in 1972, and mining began in 1977. In 2008 it was decided to increase the extraction capacities to over 6 million tons per year. This provided the basis for initial talks between Telfer and CASAR, as Telfer were not happy with the service life of the original ropes of a South African manufacturer on the floor hoisting machine and now the extraction capacities were due to increase too. The hoisting

machine is a ground mounted friction winder which transports a payload of 34.5t at a speed of 16.25m/s from a depth of 1132m to the top.



The service life of the original ropes was maximally 95,000 cycles, corresponding to almost a year. The costs incurred by downtimes and the rope replacement after 95,000 cycles were immense and had to be drastically reduced to make extraction cost-effective. That's why they asked CASAR to help. After a profound study of the site and application, CASAR decided to deploy CASAR Starplast construction. This is a rotation-free rope construction made of compacted strands. A rope set consists of 4 hoist ropes, each with a length of 1360m and a rope diameter of 45mm.

CASAR succeeded to continuously increase the lifetime up to 210,000 cycles reached with the 3. version of CASAR Starplast. The result was overwhelming as the lifetime was more than double the previous figure. Furthermore, the ropes were in perfect condition even after these 210,000 cycles and only had to be discarded as a result of mechanical damage due to rockfall, not because of wear and tear.



In addition, it was possible to virtually exclude undesired effects such as rope elongation and rope slipping on the drum, and wear on the in-lays of the rope discs was reduced to less than a quarter of the previous value. In particular the reduction of the elongation effect is really valued by Telfer as the usually necessary shortening of the ropes after occurrence of the setting effect is no longer necessary. At present the value of elongation for the 4. version of CASAR Starplast is less than 800 mm.

CASAR, Nobles and Telfer are confident that they are able to use the knowledge gained to further increase the service life to over 300,000

cycles. In this case the ropes would not have to be replaced for at least 3 years. This alone would represent major cost savings for the mine and also save a lot of time which could be used for other maintenance and repair work. It is estimated that at least 10 working days that would normally be needed to replace the rope could already be saved during the service life of the rope currently being used.

The ropes currently in use already reached 170,000 cycles in March 2015 and are still in perfect condition. We are therefore confident of reaching the set goal.

What Telfer particularly values in CASAR is that the efforts started in 2008 aimed at increasing the service life were back up throughout with advice and support. Not only were system measurements and destruction-free rope examinations carried out on site, but there were also intensive examinations of discarded rope pieces at CASAR, always focused on improving the product.

Overall, this package of customised products coupled with outstanding expertise and technical support on-site has justified the higher purchase price of CASAR ropes for Telfer. As a result, Telfer have therefore purchased their hoist ropes exclusively from CASAR in Germany since 2009.



Personality Andreas Schmeiss



WireCo is optimising its customer orientation for the Crane industry sector by recruiting a new post within its high-level management structure. Starting on May 1st, Mr. Andreas Schmeiss will take responsibility as VP Cranes for this important business sector. In addition to this, the sales organisation in Europe and China, as well as the WireCo Crane Center in Gouda, will all report directly to him.

Andreas brings with him an in-depth product and market knowledge, with 25 years experience in the rope industry, dealing specifically with Cranes, Industry, Mining and Offshore applications.

Andreas states: "My personal goal in this new position is to support the market with Crane ropes, delivering a true benefit to our customers"

We wish Andreas every success in his new role!

NEXT ISSUE WILL BE PUBLISHED IN

JULY 2015

PLANNED TOPICS:

- SUCCESSFUL PARTICIPATION AT CONSTRUCTION EQUIPMENT SHOW INTERMAT, PARIS
- WORLD RECORD FOR CASAR MINING ROPE IN AUSTRALIA
- NEW RIGGING TEAMS IMPROVE PRODUCTION TIMES IN KIRKEL

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