



# Magnetic Rope Testing

Port of Antwerp/Bruges' Pontoon Crane BRABO



## The mission

The Port of Antwerp/Bruges enlisted Vinçotte's services to examine the boom cables of their pontoon crane, "Brabo." In collaboration with Ropesys, we employed cutting-edge Magnetic Rope Testing technology to conduct a thorough inspection of the boom cables.

Belgium's largest floating crane, Brabo, owned by the Port of Antwerp/Bruges and capable of lifting 800 tons, remains actively engaged in complex lifting missions within the port, despite being over 40 years old. Vinçotte was pleased to contribute to ensuring safe operations for the crane's continued use in the years ahead.



## The challenge

The client desired a comprehensive examination of their crane's boom cables, going beyond the standard visual inspections. Given the crane's height, even when in the lowered position, our team had to operate from an aerial platform. The cable diameter varied from 82mm to 107mm, surpassing the capabilities of most conventional inspection devices.



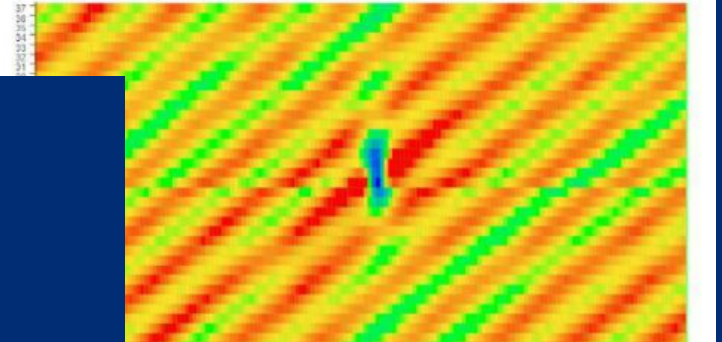
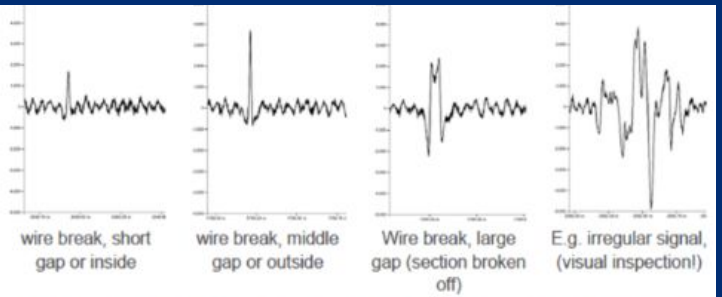
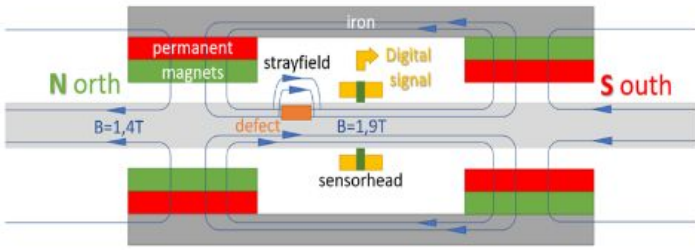
## Our approach

We determined that MRT was the most appropriate non-destructive testing technique. This method involves fully magnetizing a section of the rope and subsequently identifying and measuring alterations in the magnetic field resulting from broken wires, corrosion, wear, or mechanical damage. For this mission we collaborated with Ropesys to deliver the optimal hardware and expertise for the job.



## The results

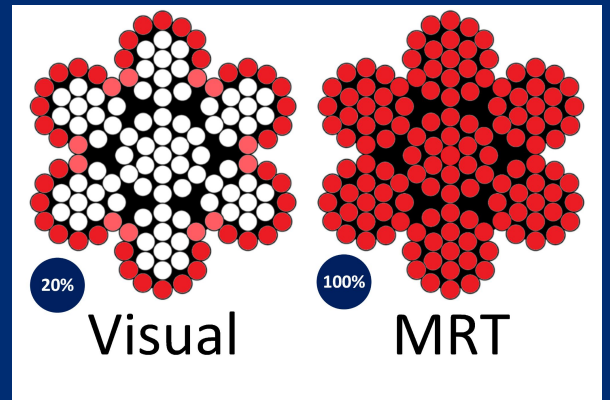
The examination provides the customer with unprecedented insights into the state of their boom cables. Critical areas of concern could be highlighted in a heatmap, offering valuable reference points for future use. This assurance contributes to a sense of security when operating the crane in the years ahead.



## MRT, OUR NEW SERVICE FOR WIRE ROPE INSPECTIONS

This groundbreaking technology modernizes Magnetic Rope Testing, ushering it into the digital era. The accompanying software assists our specialists in identifying potential anomalies. Thanks to in-depth analysis with features like heatmaps, it significantly enhances the accuracy of our assessments. Our digitized inspection data proves valuable in subsequent inspections, allowing for the recognition of damage trends over time.

While visual inspections typically reveal only maximum 20% of the cable, this technology enables us to delve deep inside, identifying issues such as inner breaks and corrosion..



## CONTACT US

Luigi Mastrosimone - Project Engineer Lifting  
+32 478 80 32 54

[lmastrosimone@vincotte.be](mailto:lmastrosimone@vincotte.be)

Joris Van Bommel - Teamlead Lifting  
+32 495 91 62 30

[jvanbommel@vincotte.be](mailto:jvanbommel@vincotte.be)

