



Expertise in steel wire ropes

It is mandatory for companies that use heavy lifting equipment to arrange for quarterly inspections of wear and tear elements - including steel wire ropes. An extensive inspection should also be conducted once each year.

Although these periodic inspections can uncover problems, they do not provide you with detailed information about the wear and tear and fatigue of your steel wire ropes. And this is precisely the information that you need to enable you to take preventive measures and thereby reduce the risk of accidents or production disruptions. Vinçotte offers you the expertise and the know-how to raise the inspection of your steel wire ropes to a higher level.

Your tailor-made solution

Vinçotte is the only External Service for Technical Inspections that has the knowledge and the tools in-house to carry out a series of special inspections on steel wire ropes. These advanced measuring techniques go far beyond visual inspections, and will provide you with a thorough understanding of all types of wear and tear that determine the life and safety of your steel wire ropes:

- 1. Magnetic Inductive (MI) examination**

Visible as well as invisible defects can be detected by fixing large magnets around the cable.

- 2. Examination of fracture surfaces**

We use a scanning electron microscope to establish the exact causes of wire breakages, thereby enabling you to take suitable measures.

- 3. Calculations on bending cycles**

Cranes that frequently execute the same movements - for example, container cranes - can cause highly specific damage to the steel wire ropes. Vulnerable areas can be identified by accurately analysing these movements, and you can change specific systems wherever required, or change over to a better type of cable, or schedule preventive replacements.

Vinçotte is constantly expanding and refining its unique know-how, thanks to a robust network of research organisations and universities that are immersed in researching cable-related problems.

Your result

- By After conducting a thorough analysis, practical recommendations will be made to you that will help you resolve recurrent problems or abnormal damage instances.
- This will not only extend the life of your steel wire ropes, but will also significantly increase safety in your workplace.
- Our experts use advanced measuring techniques to predict the life of your steel wire ropes, thereby enabling you to schedule preventive replacements. This will help you prevent downtime and loss of sales.

Please note

- Section 280 of the Belgian general regulations on occupational safety (ARAB) requires the testing of heavy lifting equipment at the time of commissioning. Section 281 makes it mandatory to conduct quarterly inspections of wear and tear elements including steel wire ropes. It is also mandatory to conduct an extensive inspection each year.
- The ISO 4309 standard describes all the guidelines for the installation, maintenance and inspection of steel wire ropes

in cranes and hoists. It lists out all the rejection criteria and also provides guidelines for periodic inspections.

Based on its unique measuring techniques and expertise, Vinçotte can closely analyse the interplay of various rejection criteria. You can therefore be assured of an in-depth and action-oriented report, based on a simultaneous analysis of various types of wear and tear.

In which situation?

- Large transshipment companies (for example, container terminals, transshipment of raw materials and animal feed, etc.)
- B2B with production travelling cranes with heavy loads (for example, paper mills, automotive, etc.)
- Crane leasing companies
- Off-shore dredging companies