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Wire Rope Safety: Don't guess!

The reliable and safe use of wire rope is crucial for onshore and offshore operations. Therefore, wire rope safety is (or should be) a constant concern of wire rope operators and safety authorities.

While appropriate rope inspection methods, discard criteria and maintenance procedures are available, they are frequently not applied. Entire operations are jeopardized by an unexplained and sometimes perplexing reluctance to use proper wire rope safety procedures. Traditional preventative maintenance and replacement schedules – if followed at all – typically are based on some form of in-service visual inspection combined with a large amount of guesswork.

A recent spectacular multi-hundred-million-dollar accident, caused by an offshore rope failure, illustrates the situation.

Many ropes deteriorate internally with no externally visible signs. This has caused rope failures in the past. Therefore, wire ropes are often discarded long before the end of their useful service life. This means that, literally, tens of millions of dollars' worth of expensive and perfectly good wire rope is discarded annually. At the same time, this wasteful and overcautious approach by no means assures wire rope safety.

Most wire ropes are covered with grease, which makes visual inspection – even for surface deterioration – impractical. Plastic coatings preclude visual inspections for many ropes.

Considering the replacement cost of your ropes and equipment together with the true cost of a potential rope failure, can you really afford to guess the condition of your wire ropes?



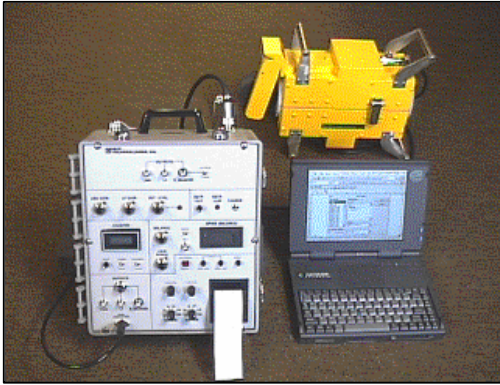
Electromagnetic Inspection is a reliable non-destructive evaluation procedure used for the in-service inspection of wire ropes. More dependable than visual inspections, non-destructive inspection methods allow the detection and evaluation of external as well as internal rope deterioration. This allows the inspection of a rope's entire cross-section to the core.

Electromagnetic Inspection drastically increases wire rope safety. At the same time, it promises significant annual savings.

Founded in 1980, NDT Technologies, Inc. is the only manufacturer of electromagnetic wire rope test equipment in the United States. We offer a complete line of electromagnetic (magnetic flux leakage) wire rope testers for ropes with diameters up to 4½ inches (115 mm).

The operation of our equipment is surprisingly simple, and personnel training and certification are readily available.

Our equipment is battery powered. This feature allows convenient mobile operation and prevents electromagnetic interference present in many industrial environments.

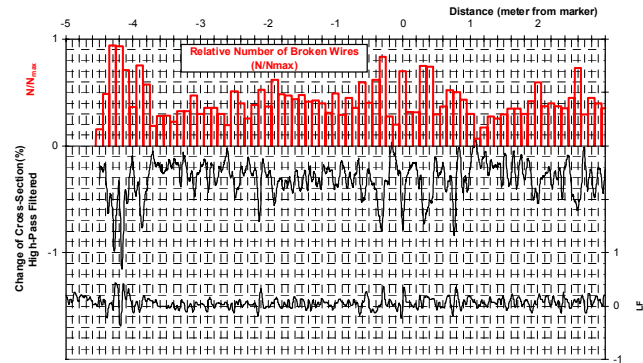


Our wire rope test instruments are of the so-called *dual-function LF/LMA* type, which means that they can

- reliably detect *Localized Flaws (LFs)*, typically caused by external and internal broken wires and corrosion pitting, and
- accurately measure *Loss of Metallic Cross-Sectional Area (LMA)* due to external and internal corrosion and wear.

Using the built-in chart recorder, our rope testers can be used for simple day-by-day safety inspections, while our NDT_CARE™ (Computer-Aided Rope Evaluation) software allows a comprehensive rope safety and operational analysis (including report writing).

Compared to competing instrumentation, our testers offer superior resolution and inspection accuracy, and this exceptional performance has been verified and documented by independent round robin tests.



For example, these round robin tests have convincingly demonstrated that, among all competitors, our rope-testers are the only equipment capable of reliably inspecting non-rotating multistrand ropes for internal broken wires.

Our rope testers can detect rope deterioration at its earliest stages. Therefore, wire rope users can employ them as an effective preventative maintenance tool. To illustrate, here are some practical examples.

1. The early detection of corrosion allows immediate corrective action through improved lubrication.
2. Accelerating wear and interstrand nicking can indicate a need to reline sheaves to stop further degradation.
3. Careful inspections can monitor the development of local damage at the crossover points of the rope on a winch drum. This way, the operator can determine the optimum time for repositioning the rope on the drum.

For Information please contact:



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