ELECTROMAGNETIC INSPECTION (EMI)

Detailed inspection into the condition of wire rope

AFRICA’S PREMIER ENERGY SERVICE PROVIDER
The Electromagnetic Inspection (EMI) provides a detailed inspection into the condition of a wire rope. Its reliability has made this type of testing a universally accepted method for the inspection of wire ropes running over sheaves. The principle of Electromagnetic Inspections is to magnetically saturate a section of wire rope as it passes through a set of permanent magnets. Sensors detect disturbances to the field, which are automatically adjusted to correct for any speed variations of the wire rope.

The Disadvantages of a Visual Inspection
A steel wire visual inspection inspects about 20% of the metallic cross-section area. Visual rope inspection = 20% evidence + 80% HOPE. Therefore, you can only assume that 80% is in good condition. To gain real information about the remaining 80% of the steel wire rope cross section, electromagnetic (EMI) inspection methods have been developed.

Advantages of an EMAG Inspection (EMI)
EMAG provides 3 primary sets of information:
- The extent of the occurrence of broken wires.
- Amount of rope diameter loss due to corrosion and wear damage.
- Complete history of wire rope is recorded over its working life.
Invest in Advanced Asset Integrity Management

Wire rope deteriorates gradually throughout its entire service life. To keep ahead of deterioration, wire rope must be periodically inspected. That’s why Nikham Offshore invests heavily in providing world class NDT inspection services and equipment, aimed at monitoring, and evaluating wire rope deterioration and in the best interest of safety. Nikham Offshore works with owners and crane lifting equipment users to ensure safety and minimise operational downtime due to wire rope failure.

ISO SANS 4309-2017 states that a magnetic rope tester and visual inspection is used annually or depending on Environmental and load cycles of the lifting machine.
WIRE ROPE CLEANING & LUBRICATION

- Improve wire rope life up to 300%
- Suitable for wire ropes from 6mm - 165mm diameter
- 2000m/h Grease up to 2000M of wire rope p/h

* All our NDT Equipment is hand carried and quickly setup.
ROPE CLEANER

In order to conduct a visual inspection of wire rope assets, it is critical that the old lubricant and contamination is removed from the outer strands and valleys of the rope, prior to inspection.

Our wire rope cleaners enable the removal of contamination or built-up old lubricant from the wire rope prior to lubrication, improving the effectiveness of the lubrication process.

Wire Rope Cleaning Benefits

• Effectively removes external contamination on wire ropes so visual inspection of rope can take place.
• Reduced downtime associated with rope lubrication which improves equipment availability.
• No tools required, very easy and fast to install.
• Less wear on sheaves and winch drums.
• Removes contamination in the valleys of the rope to provide improved lubricant penetration.
• Unit has two support bushes spaced well apart giving the unit a lot of stability.
• Safer for staff, reduced lubricant usage, less leakage and mess.
• One-person job – easy to install and use.
ROPE LUBRICATOR

Our Wire Rope Lubrication range provides fast and effective cleaning and lubrication of wire ropes, from 6mm (1/4”) to 165mm (6-1/2”) in diameter, which can be greased at speeds up to 2,000 meters per hour.

Wire Rope Lubrication Benefits

- Increases the life of wire rope assets by up to 300% compared to manual lubrication.
- Reduces re-lubrication time of ropes from several days to several hours compared to manual lubrication.
- Environmental benefit with less lubricant used and discarded into the environment.
- Safer work environment.

HEALTH SAFETY and ENVIRONMENTAL BENEFITS

Our equipment was developed with safety and the environment top of mind. When correctly used our wire rope equipment has several Health, Safety and Environmental benefits.

- Every gram of grease goes on the wire rope.
- Our equipment does not leak meaning no on-site mess.
- No wasted lubricant.
- Our lightweight equipment allows for safer applications.
- There is no direct contact with the lubricant.
- The wire rope can be lubricated from a safe distance.