Crane Rope Inspection and Discard - Magnetic Rope Testing

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Why MRT?

- Signature trace
- Internal inspection
- External inspection (lubrication, dirt)
- Full length of rope
- Quantitative results (LMA)
- Permanent record/off-line analysis
- Legislation
Traditional internal examination
Plastic impregnated or PFV ropes

Traditional internal examination
Traditional external examination
Magnetic Rope Testing
Magnetic Rope Testing

- Powerful permanent magnet
- High accuracy sensors
- Dual function, simultaneously detect LF and LMA
- Length measurement
Analysis and interpretation of results

Real time viewing
Localised Faults (LF)

Output traces

Loss in Metallic Area (LMA)
MRT
Internal degradation
MRT

Internal degradation
MRT

Fretting corrosion
MRT

Fretting corrosion
MRT

Core degradation
Core degradation
MRT
Core degradation
Core degradation
MRT

Internal and external inspection
MRT
Internal and external inspection
Offshore lifting ropes
Safety requirements for cableway installations designed to carry persons — Ropes —

Part 8: Magnetic rope testing (MRT)
Mooring ropes
Crane ropes
**MRT - current use**

- O&G
- Mining
- Aerial ropeways

**MRT - future use**

- As above +
- Rope factory (signature trace)
- Cranes (ISO 4309)
- Mooring ropes
Thank you