



## LIFTING EQUIPMENT ENGINEERING

— ASSOCIATION OF SA —

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# MRT EXAMINATION – PRACTICAL



Course Name:  
MRT Examination – Practical



Course Number:  
LCPD-2025-26



Course Duration:  
30 Hours



ECSA CPD Credit:  
3



Presenter:  
Various



This is a newly developed practical and theoretical course in which the latest new development in crane steel wire ropes is explained. Although Shaft Mining Ropes have been Electro Magnetically Examined since 1920, the general crane industry is now also leaning in that same direction.

**BE PREPARED!**



### ABOUT THIS COURSE

- It is important to mention that the use of the MAGNETIC TESTING tools must be accompanied with correct training even to remotely be able to conduct an accurate inspection and assessment.
- The training includes identifying and determining the correct parameters required to be entered into the machine to obtain valid inspection results.
- The rope type is identified, and the construction type inspected. This includes a visual examination of the rope and will assist in the later electromagnetically measurements and is critical.
- The recorded inner coil voltage, the percentage of wear and the area of broken wires is estimated from the calibration curves measured by the device. From this, the number of broken wires can be estimated, based on the construction of the rope. The allowable tolerances as per the OEM or relevant technical standards, such as SANS or ISO 4309 can be measured.



### WHAT YOU WILL LEARN (PRACTICAL)

During this session you will be shown how to set up and correctly use the MRT machine. This will also allow us to evaluate the correctness and accuracy of the outcome.

- 1 Identifying Correct Positions.
- 2 Setting up.
- 3 Programming the Analysis Type.
- 4 Entering Correct Parameters.
- 5 Translating Actual Construction.
- 6 Running Rope in MRT.
- 7 Analysing Outcome Graph.
- 8 Translating Graph.



### WHY THIS TRAINING MATTERS



The outcome of the MRT depends on how well the operator uses and pre-programmes the machine.



Accurate inspections help ensure rope safety, extend service life and prevent catastrophic failures.



Correct training leads to correct decisions and compliance with industry standards.



So, **training is vital.**



**THERE IS NO QUESTION THAT WILL NOT BE ANSWERED,** and the attendee will leave in a perfectly equipped way to conduct the inspection 100% correct.



### KEY TAKEAWAYS



Accurate examination through correct setup and technique.



Understand and apply MRT technology with confidence.



Interpret results correctly for better decision making.



Ensure compliance with OEM and industry standards.



Improve safety and reliability of lifting operations.



**RESERVE YOUR SEAT TODAY!**

**INVEST IN KNOWLEDGE. SAVE LIVES.**



ECSA RECOGNISED  
VOLUNTARY ASSOCIATION  
VA A0028  
Expiry: 19 July 2029



ECSA CPD  
LICENSED BODY  
LB\_016/2027  
Expiry: 06 June 2027



ECSA CPD  
SERVICE PROVIDER  
SP\_034/2025  
Expiry: 10 October 2025

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