

***We bring eddy currents to the rail!***

- **Carbon-Fiber Inspection Trolley - Ultralight**
- **Small On Weight - Big On Manageability**
- **Requires Just One Operator**
- **For Rails And Switches**



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**ID** Preisträger  
INNOVATIONSPREIS  
Rheinland-Pfalz

## ROHMANN GmbH - We bring eddy currents to the rail!

Railroad rails are subject to great stress: they are stressed by increasing traffic (load alternations), increasing axle loads and increasing speeds, especially in high-speed sections. Therefore rails must be tested very carefully based on their load profile. It is therefore the job of a modern eddy-current test instrument to detect and evaluate defects such as headchecks, squats and other cracks, even in weld seams.

The ROHMANN-inspection trolley is made from ultra-light-weight carbon fiber and is easily handled by just one operator. The trolley can be assembled and disassembled without tools within a matter of minutes. The trolley is versatile and may be equipped with a variety of eddy-current test instruments depending on the inspection at hand.

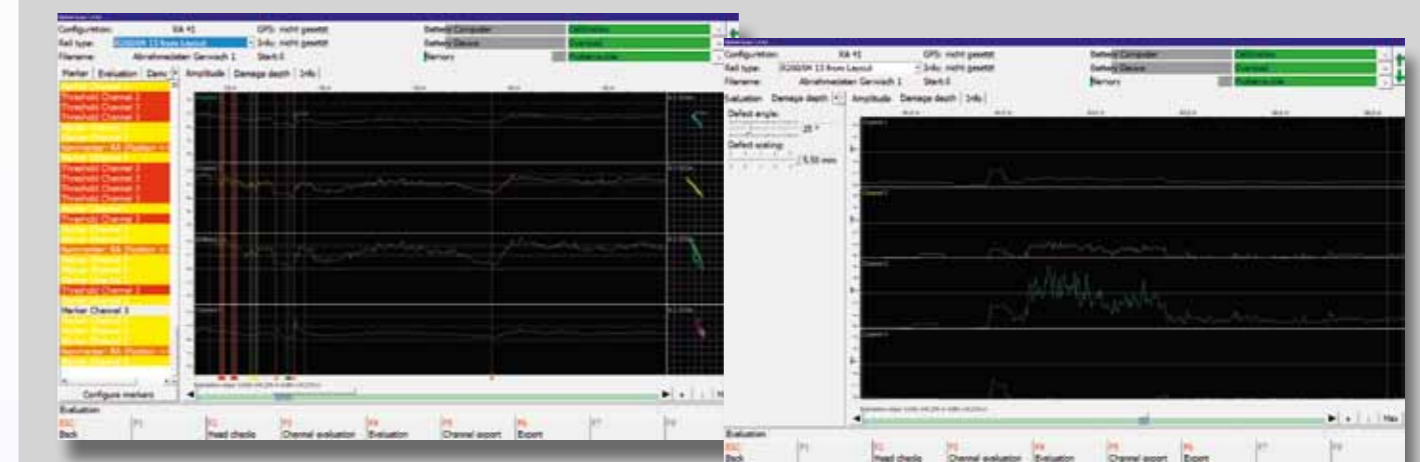
The trolley is guided by a new and patented magnetic holder that enables an extremely smooth running and precise inspection along the running edge. Due to the adjustable magnetic guiding forces, the trolley can be quickly and easily removed from the track if a train approaches.

Additionally the holder enables the trolley for inspections through switches. The probes have a ceramic protection against wear and tear and can be guided contactless or in a sliding fashion.

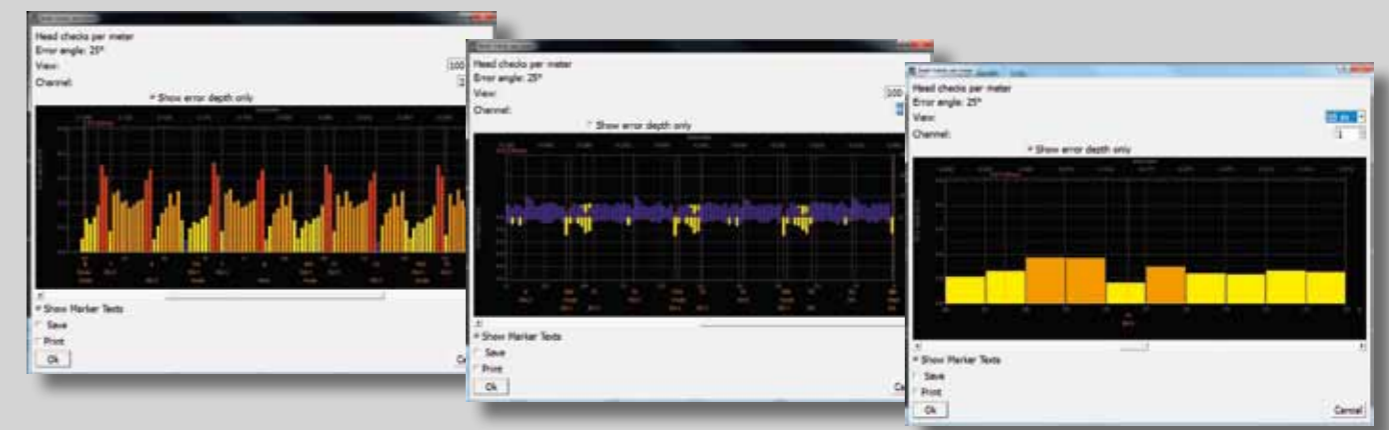


Patented calibration standard with universal magnetic fixture

## Software EloRail



Data acquisition and real time visualization of the raw data/Postprocessing of the raw data leading to calculated



Easy and quick analysis of the track condition, based on the acquired defect information per track segment



Extensive reporting for detailed damage documentation

## Use

### Trolley for the Manual Inspection of the Rail Head

- Local follow-up inspection
- Inspection of rails in switches (fully suitable for switches)
- Inspection of rails in tracks
- Re-examination of ambiguous test results
- Follow-up inspection during grinding
- May be used on all track systems
- For all established rail profiles: UIC 60, etc.
- Adoptable to different track gauges

## Design

- Lightweight chassis made of CFK (12kg/ 26,45 lb without laptop)
- Maximum stability at lowest dead weight
- Patented magnetic guiding along the railrunning edge without any clamps, therefore easy removable from the track
- Real one-man operation
- Easy and quick manual assembly without tools
- Disassembled and packed in a useful protective trolley case
- Patented calibration standard

## Probes

- Special eddy current probes for the inspection of rails
- Cracks with a length of up to 12 mm can be distinguished
- Probefocus: approx. 6 mm per probe
- 4 probes adjustable to 20 different test positions which cover up to 60 mm of surface over the gauge corner
- Sliding probes made of ceramic (sliding block) offer an optimal probe distance and probe angle
- Probe head especially adapted to the gauge corner curvature

## Protective System

IP63

## Operating Features

Self-sufficient operation for 4 hours

## Weight

Approx. 12kg/26,45 lb net including test instrument and probes with wiring (without laptop)



Easy assembling

## Software EloRail WPG D340

### Software

- Precise data acquisition in relation to the track position along the rail
- Multi channel display (up to 4)
- Selectable display of the raw data (eddy current signal) or of the calculated depth of damage for headchecks
- Evaluation of the test results and presentation of the test report within minutes
- Export function for easy export to for further analysis and post-processing of the data

## Approved by the DB Netz AG

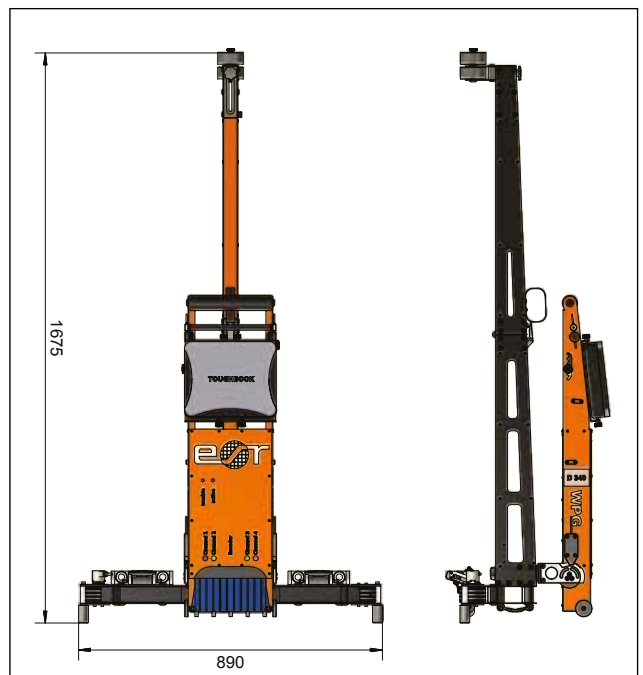
On basis of DB Ril.821.2007

No. of approval: 052-ZU-0250-12

Valid from 09/2012



Case with trolley



EloRail WPG D340