



RIFLEX

RIFLEX
Rail Inspection by Flexible Electromagnetic Acoustic Transducer

Rail inspection by flexible electromagnetic acoustic transducer

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Challenges

- Improve the efficiency, effectiveness and safety of non destructive evaluation (NDE) of rail steels.
- Development of couplant free, electromagnetic ultrasound arrays and purpose built interfacing electronics.
- Development of pitch-catch signal generation, closed loop probe stand-off control and signal conditioning with automatic defect detection.

Impact

- More rapid, integrated inspection increasing efficiency by removing the requirement for repeated inspection to verify results.
- Increased detection due to a greater proportion of rail head covered, leading to increased effectiveness of inspection.
- Increased infrastructure availability through reduced possession times and personnel exposure time, leading to improved operational safety.
- Supports optimised maintenance planning and scheduling, leading to efficient maintenance activities.



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