AURA - Automated Ultrasonic Testing

Inspection of the wheels of wheel sets

Inspection of the wheels is performed on both wheels in parallel or one after the other. The newly developed wheel inspection system is used for this purpose. With only one full turn of the wheel, the wheel comprising disk and rim is fully inspected. This inspection of a wheel set takes only a few minutes.

Features
- 100% inspection
- A compact inspection system for all types of wheels
- Straightforward, fast inspection with maximized results
- Enhanced QA through clearly defined inspection sequence
- Simplified logistics thanks to full scope data acquisition and evaluation for complete trains
- Fast geometry-based data evaluation
- Inspection of all types of wheels used on the ICE 3 and ICE-T
- Inspection of all types of solid shaft axles
- Automated conveying of the wheel sets to / from the test bench
- Elimination of magnetic particle detection
- Ease of maintenance and repair through integrated self testing procedures

Advantages
- Automatic feed of the wheel sets
- Non-magnetic particle / inspection required
- Short inspection times
- Simple system control by user-oriented software
- Service and maintenance support by integrated system self test
- Remote system diagnostics
- Immediate documentation of inspection results
- Post-processing and analysis of A-scan, B-scan, C-scan images
- Quick status information of acceptable stock through integrated data management software

References
The first system was delivered to the maintenance shop of the German railway organization DB in the year 2003.

The systems are operating since then without interrupt.