



RAILWAY TECHNOLOGY

Ultrasonic - Underfloor Testing System for wheels



The stationary ultrasonic-testing device allows in the track area to inspect automatically all mounted wheelsets on a start-stop shunted train. From the testing of individual areas, such as thread, rim or flange longitudinal, transverse, volume and surface errors, can be defined via the evaluation of parameters the forthcoming maintenance arrangements. Also, taking into account can be identified the wheel position and the route reference valuable pointers for weak point analysis in conspicuous wheel wear marks.

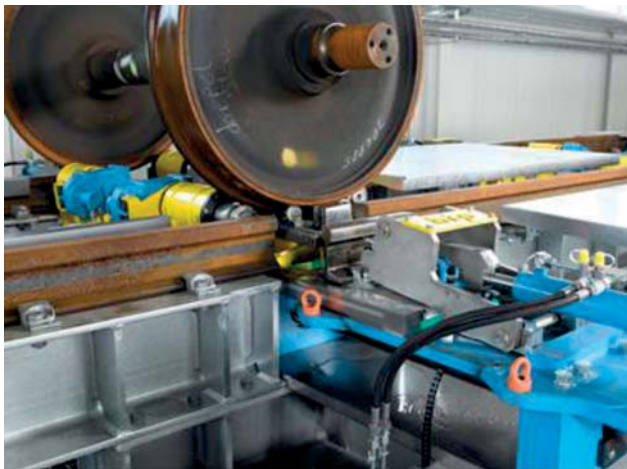
Innovative characteristics:

- Simultaneous testing of 4 wheels in the bogie
- Robot-supported probe coupling or coupling with dedicated probe carrier
- the train is clocked by a shunter from bogie to bogie or self-propelled
- testing of bogies with different wheel bases
- Acoustic signal for the operator if notice is found in the wheel (optional)
- optionally use of phased array ultrasonic technology or current probes is possible

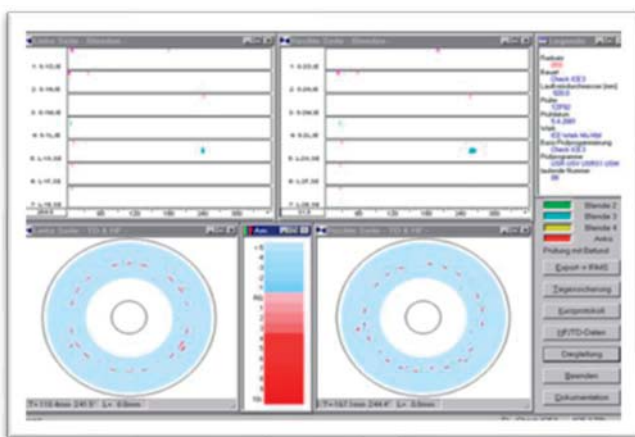




Plant process



Entering the name and type of train, will be the train requested by traffic lights into the facility. There is selectable if all or only one part of wheelsets must be inspected. With the help of a shunting locomotive and traffic light as positioning help will be the bogie positioned over the testing plant. After that the wheelsets of a bogie are lifted about 10 mm, the testing probes are coupled and the inspection starts. In case of error diagnosis will be called the operator by an acoustic signal for evaluation. If no notices are found, the tested bogie is automatically let down and the system requests the next bogie. The shunter locomotive clocks the train bogie by bogie until it checked is completely. Afterwards a train test protocol is generated, with result presentation to each wheel generated. The plant allows optional ultrasonic testing of trains with different wheelbases or with different bogies.



Testing results

The testing results are displayed graphically on a display or in tabular form. Tolerance deviations are highlighted and color-coded. The data is stored and can be exported via different interfaces. The total overview of the train and condition of its wheels is also displayed.

Technical Data

Use of ultrasonic and eddy current technology

Testing time: from 10 min. per bogie

Also as single-plant for one wheelset deliverable

Adjustable wheelbase for different bogies

Compliance of the DB AG-inspection regulations

Wheel profile, Track gauge: diverse
Operation by one operator

Status as of 09/2022