

## LD WAYSIDE ULTRASONIC INSPECTION SYSTEM FOR WHEELS



### TECHNICAL SPECIFICATION

- Speed range for inspection: 20km/h  
(constant speed is recommended)
- Ultrasonic probe sensitivity:  $\phi 2\text{mm}$  FBH
- Defects on reference wheels:
  - Wheel flange:  
5mm depth radial notch at the top of wheel flange
  - Wheel rim:  
 $\Phi 3 \times 100$  mm SDH (for shear wave probes)
  - Circumferential defect in flat bottom ellipse with 40mm long axis, 30mm minor axis at 60mm ~ 100mm regions (for longitudinal wave probes)



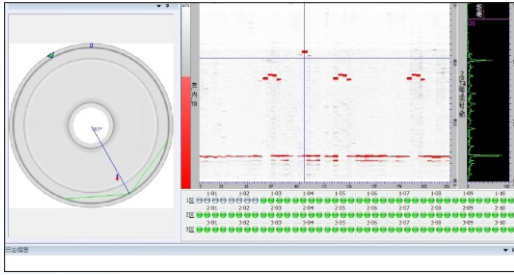
Defect in wheel rim



Defect on tread



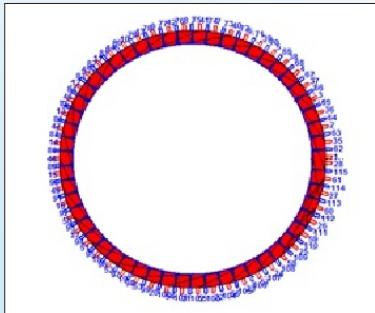
Circumferential crack



Automatic alarming and A/B scan reviewing



Ultrasonic array inspection technology



Ultrasonic coverage of wheels

LD Wayside Ultrasonic Inspection System for Wheels is a wayside mounted ultrasonic inspection system for wheels and is installed at the entrance of the line depot. The system is based on an array of ultrasonic probes that are installed dedicated rail, when defects in the wheel rim are automatically detected then an automated alarm is raised

## KEY FEATURES

- Wheel rim ultrasonic inspection; wayside inspection
- Fully-automatic inspection
- High efficiency
- Arrayed ultrasonic probes installation
- Suitable for all types of high-speed train, rolling stocks, locomotive and metro wheel set

## MAIN FUNCTIONS

- Automatic detection fatigue cracks and internal defects in wheel.
- Automatic recognition of train ID and axle position.
- Automatic alarming and reporting.
- Inspection data A/ B-Scan reviewing.
- The management of inspection data and results is available.
- Automatic coupling water supplying and recycling.
- Automatic ultrasonic probes protection.
- System self-diagnosis and remote diagnosis.