Y.TireAXIS™ 7

Automatic X-ray Inspection System for tires

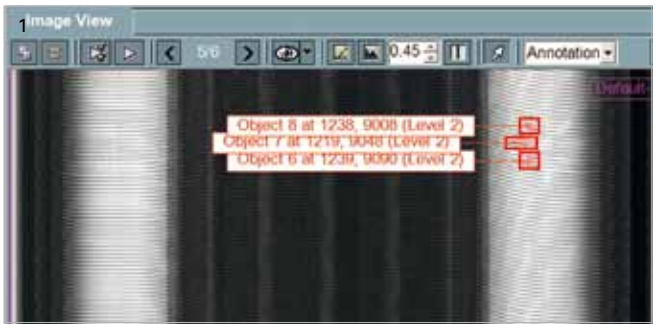
- Consistently objective inspection results
- Fully automated, operator-free inspection process
- Configurable inspection programs
- Proven worldwide at our customers

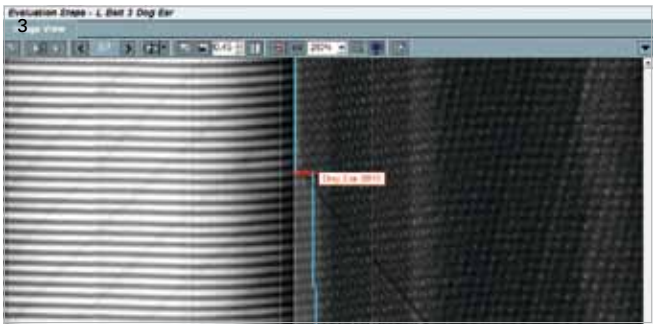
The fully automated radiographic inspection of tires has become possible for the first time: with Y.TireAXIS (Automated X-ray Inspection System). Fully automated inspection eliminates the uncertainties that can occur due to operator decisions in the case of visual inspection purely 'by sight'. No potential anomalies are overseen when an operator is tired or distracted. The inspection results achieved using Y.TireAXIS™ are reproducible and enable a consistent quality of inspection. The available tests cover all of the typical anomalies searched for during radiographic inspections of truck and passenger-car tires in compliance with quality standards. Among other factors, the body ply cord, chafer, belt and bead are inspected in the course of fully automated tire inspection.

Now that major corporate groups have been safeguarding the quality of their products for years by using fully automated X-ray inspection, these days more and more smaller-scale customers all over the world are deciding in favor of Y.TireAXIS™, too. Many of them were able to save on inspection costs as a result, but all of them achieved a distinctly greater quality of inspection with Y.TireAXIS™. Each manufacturer can configure the inspection program extensively in order to adapt it individually to the conditions at their factory. Y.TireAXIS™ is installed on a conventional industrial PC and, when integrated into the Y.MTIS X-ray system, can be incorporated directly into the production process without influencing the cycle time.

YXLON. X-ray technology at its best.

YXLON
Technology with Passion





1 Blister
2 Configuration
3 Dog ear
4 Cord tracking

Inspection workflow

Y.TireAXIS™ is fully integrated into Y.MTIS, the tire X-ray inspection system from YXLON. It uses the regular X-ray image acquired by the X-ray system. Without automated software, the operator would simply view that image. With Y.TireAXIS™, the powerful software analyzes the image, then the inspection decision is made according to the defined inspection specification. The result and corresponding image are optionally stored locally or on a file server for later reference.

Inspection modes

- Automated inspection:
  Fully automated inspection and result via Y.TireAXIS™
- Supervised automatic:
  Display of the result along with the tire's X-ray image; final decision to be made by the operator

Inspection tasks

Y.TireAXIS™ detects anomalies in different areas of the tire. The most commonly used inspections cover:

Alignment and consistency of tire components

- Belt centering, width, angle and belt wander
- Correct position or height of turnup and chafer
- Offset splices in belts, chafer and turnup
- Kinked beads and loose bead wires

Analysis of steel cords

- Cord spacing, including crossed and touching cords
- Wavy cords

Detection of

- Foreign material and air voids and blisters

Statistical process data

The key image analysis data is exported and made available for statistical process control.

Options

- Y.TireCAT, automated calibration tool
- Offline PC for recipe creation and verification

YXLON
Technology with Passion

YXLON International GmbH
Essener Bogen 15
22419 Hamburg
Germany
T: +49 40 527 29-101
sales@hbg.yxlon.com, www.yxlon.com