TRANSIT BOGIE CONDITION MONITOR

Know what to repair and when

TBOGI-TR is a new generation of wayside systems designed specifically for transit/metro environments. Using modern technology and an advanced array of geometry metrics, TBOGI-TR delivers unparalleled in-service assessments of individual bogies and wheelsets. The TBOGI-TR system is a cornerstone of efficient wheel-rail interfaces and an essential component of cost-effective railways.

TBOGI-TR SYSTEMS ENABLE CUSTOMERS TO:

- **Gain twice the wheel life.** TBOGI-TR pinpoints the source of accelerated wear issues. Early corrections yield longer wheel life and lower maintenance costs.
- **Stop premature rail wear, especially through curves.** TBOGI-TR identifies the specific defects responsible for characteristic rail wear. Railways can prioritise interventions and target the issues that are most prevalent in their network.
- **Improve fuel/energy efficiency.** TBOGI-TR quickly singles out any bogies experiencing higher than normal rolling resistance (up to 40% higher). By focusing on specific bogies, railways can conserve fuel/energy and reduce costs.
- **Reduce risk.** TBOGI-TR helps railways reduce the risk of unscheduled maintenance and derailment. Prompt attention to the most severe defects improves safety and lowers risk exposure.
- **Reveal hidden root causes.** TBOGI-TR offers unique insights for effective maintenance and uncovers issues other monitoring systems can't spot. Railways are better equipped to take smart, targeted action to end repeated maintenance costs.

WID | WAYSIDE INSPECTION DEVICES

Wayside Inspection Devices (WID) is a globally trusted producer of trouble-free, accurate measurement systems with proven performance in railroad environments around the world. WID's TBOGI system is widely recognized as the technology of choice for reliable bogie condition monitoring.

TBOGI-TR provides highly accurate, laser-based measurements.

TBOGI-TR reveals the presence of compromised wheel-rail interfaces causing accelerated wear to wheels and rail. The TBOGI-TR system offers a unique, cost-effective method for capturing the condition of rolling stock and diagnosing precisely when – and why – issues emerge, before they become costly.

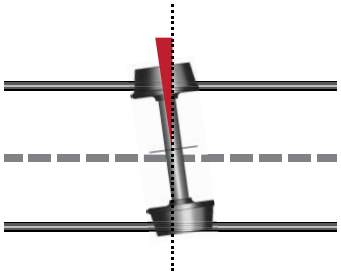
DATA & MEASUREMENTS

- Laser-based collection of highly accurate measurements for each wheelset of trains passing at speeds up to 300 km/h
- Comprehensive data tools, easily accessible via browser-based interfaces and a dedicated application for mobile devices
- Clear defect alerts and steps for targeting the right components, not only the obvious ones
- Accurate measurements regardless of changes in weather, train configuration, and rail lubrication conditions
- Optional extension: Identification of bogies with defective stability (hunting)

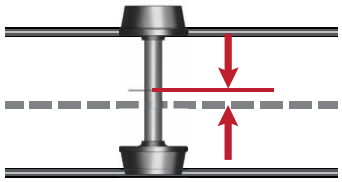
INSTALLATION

- Optimized design for transit/metro railway environments including tunnels, metropolitan areas, or multiple-track main lines
- Tangent track installation means no need for special track layout
- Installed at a safe distance from passing trains; will not interfere with track maintenance work
- Simple to install and easy to maintain
- Proven to be railroad-tough, highly reliable, and cost-effective

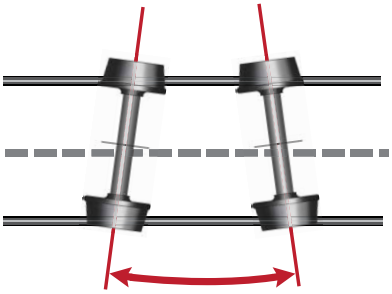
Angle of Attack (AOA)



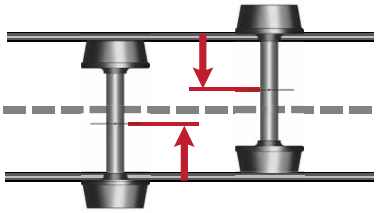
Tracking Position (TP)



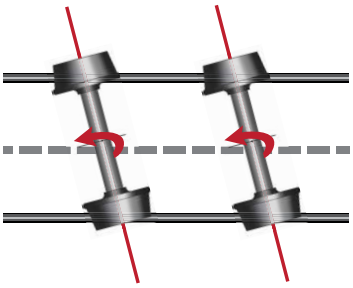
Inter-Axle Misalignment (IAM)



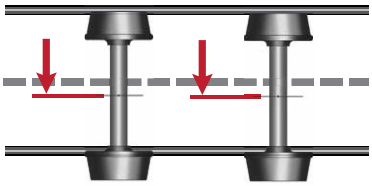
Tracking Error (TE)



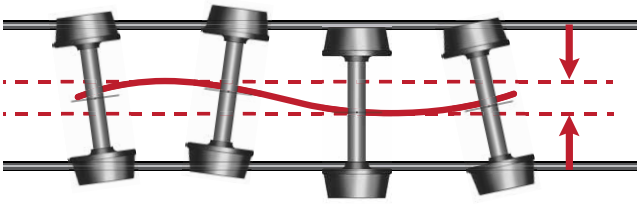
Rotation (ROT)



Lateral Shift (SHIFT)



Hunting / Lateral Instability (optional feature)



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