BOGIE CONDITION MONITORING

TBOGI-HD

BOGIE CONDITION MONITOR AND HUNTING DETECTOR

Know what to repair and when

The patented TBOGI-HD technology developed by WID inspects rolling stock in motion to monitor the in-service condition of the bogies and their wheelsets. Using TBOGI-HD technology to help direct maintenance resources will reduce the stress state of your railway operation.
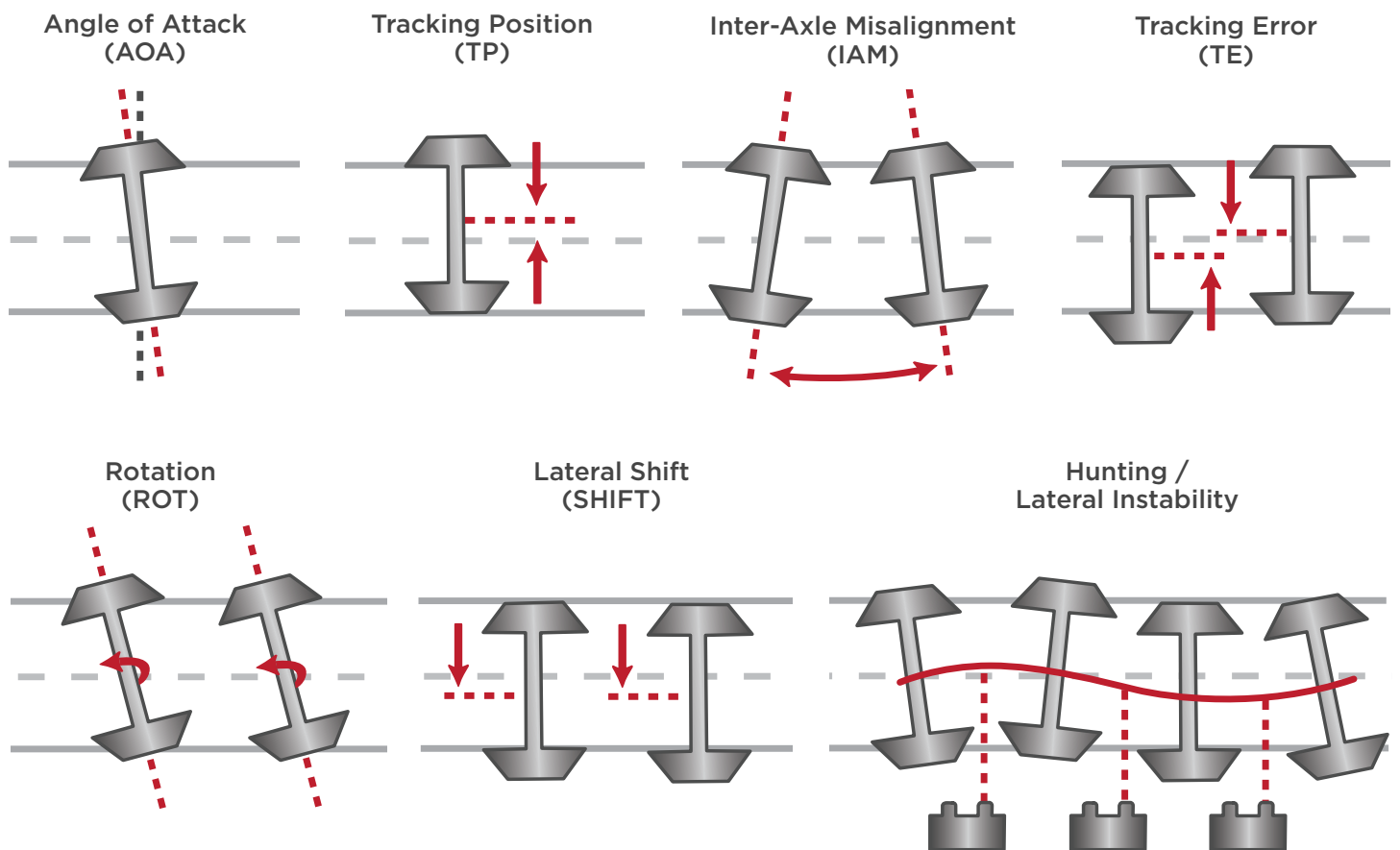
TBOGI-HD SYSTEMS ENABLE CUSTOMERS TO:

- **Reduce wheelset wear, prolong bogie component life.** TBOGI-HD identifies problem bogies early before accelerated and costly wear sets in. TBOGI-HD also identifies laterally unstable bogies (hunting) that further accelerate wear of bogie components.

- **Reduce rail wear, rail-grinding frequency.** Accelerated wheel wear implies accelerated rail wear. Correcting geometric faults identified by TBOGI-HD will reduce the rail wear rate and grinding requirements. Correcting hunting bogies will reduce damage to rail and track components.

- **Reduce fuel consumption.** Correcting problem bogies identified by TBOGI-HD will reduce their rolling resistance, which translates into fuel savings.

- **Enhance safety.** TBOGI-HD identifies bogies with geometry issues (skewed, misaligned, improper tracking) and hunting bogies that pose an increased derailment risk.

- **Direct maintenance.** TBOGI-HD's comprehensive data set provides precious insight in determining the root cause of problem bogies.

WID has earned an excellent reputation for producing trouble free, accurate measurement systems, well adapted to the harsh railroad operating environments around the world. TBOGI is widely recognized as the technology of choice for bogie condition monitoring. TBOGI customers include freight, heavy haul as well as passenger railroads around the world.

TBOGI-HD is a laser-based system that provides high accuracy measurements of axle and bogie geometry that reflect the health state of the bogie. TBOGI-HD also measures bogie-hunting motion. Hunting motion is characterized by TBOGI-HD in real physical units (mm displacement, frequency, wavelength), not a meaningless index.

TBOGI FEATURES:

- Laser based, provides high accuracy Angle of Attack and Tracking Position measurements of each wheelset of a passing train at speeds up to 300 km/h.
- TBOGI-HD also identifies bogies displaying lateral instability - "bogie hunting".
- Installed on tangent track, no need for special track layout.

- Non-contact sensors installed at a safe distance from passing trains do not interfere with track maintenance work.
- Measurements are immune to changes in weather and rail lubrication conditions.
- Simple to install and maintain.
- Demonstrated high reliability record, low cost of ownership.

Angle of Attack (AOA)

Tracking Position (TP)

Inter-Axle Misalignment (IAM)

Tracking Error (TE)

Rotation (ROT)

Lateral Shift (SHIFT)

Hunting / Lateral Instability