

Wheel Impact Load Detector

The WILD detector is a hardened electronic data collection device that measures vertical wheel forces via rail-mounted strain gages. The Wheel Impact Load Detector measures impact forces cause by damaged wheels. These high impact forces damage vehicles, cargo, and infrastructure.

The Nagory Foster Wheel Impact Load Detector is the most widely used system in the world today, with nearly 300 installed to date, to detect and alarm on excessive wheel impacts for the targeted removal of defective wheels. An essential component of any performance-based wheel management program, the WILD continually monitors rail vehicle wheel health to ensure safe and productive train operations. WILD systems evaluate millions of wheels per day throughout the international rail industry with proven accuracy and reliability.



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WILD

Benefits:

Reduces:

- Derailments
- Rail Fatigue
- Bearing Damage
- Track Damage
- Car and Truck Damage
- Concrete Tie Cracking
- Wood Tie Plate Cutting
- Lading Damage

Increases:

- Wheel Tread Life
- Fuel Efficiency

Features:

- Impact Force Monitoring
- Train, Vehicle and Wheel Information
- Bi-Directional Traffic
- Automatic Car Counting and Identification (With Valid Car Library)
- Self-Diagnostics
- Instrumentation Layout Optimized for Maximum Wheel Coverage
- AAR Rule 41 Standard Compliant
- Automated Alarm Notifications

powered by

The logo for IntelliTrack Technology, featuring a yellow arc above the text "intelliTrack" in a bold, black, sans-serif font, with "Technology" in a smaller, black, sans-serif font below it.

Specifications

- Operating Speeds – 50 to 300 km/h (30 mph to 180 mph)
- Resolution – 100 lb. / 445 newtons
- Measurement Zone – 16 meters (50 feet)
- Hardened Electronics in 19" rack
- Power – 120/220 volts AC or 12/24 volts DC
- Power – Approximately 4 amps at 24 volts DC
- Bungalow Electronics Operating Temperature 0 °C to 55°C (32 °F to 131 °F)



WILD Installation and Operation

A series of strain gage load circuits, micro-welded directly to the neutral axis of a rail, create an instrumented zone for the measurement of vertical forces exerted by each wheel of a passing train. Signal processors, housed in a nearby enclosure, analyze the data to isolate wheel tread irregularities. If any wheel generates a force that exceeds a customer-configured alarming threshold, a report identifies that wheel for

action. Customers can configure multiple alarm thresholds corresponding to their operating procedures. These reports are distributed in real-time to such interested parties as rail traffic control centers and vehicle repair shops.



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