# WCM®

## WHEEL CONDITION MONITOR

WCM provides valuable information on wheel tread health and loading conditions to help improve wheel life, bogie maintenance, and safety. It is an innovative and low-cost system with both wheel impact load detector (WILD) and weigh-in-motion (WIM) capabilities.

WCM reliably detects a range of wheel tread defects such as flats, spalls, shelling, roughness, and out-of-roundness, and poor loading conditions such as overloading, uneven loading (imbalances), and wheel unloading.

Sensors are modular and clamp to the rail with no requirement for track structure modifications. The benefits of clamp-on sensors are easy maintenance and installation, often without interfering with normal traffic.

**Wabtec**
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## WCM SYSTEMS

All WCMs are "systems-ready" ensuring rapid introduction into your railway network. On-track components are electrically triple isolated, protected by stainless steel covers, and mounted below the rail foot, reducing the opportunity of damage by dragging equipment.

Located over eight cribs, each section is electrically and mechanically isolated; the ability to service & maintain individual crib sections reduces costs and downtime.

WCM can be provided with an automatic vehicle identification (AVI) system, typically consisting of tag readers that capture RFID tags mounted on passing rolling stock. This allows data to be assigned to rolling stock components for trending and alerting.

FleetONE provides a user-friendly interface for alerting, reporting, and data analysis. WCS supports you after installation to ensure you get value out of the information provided by WCM.

## GENERAL FEATURES

Wheel impact alerting

Overload & imbalance alerting

Ability to issue alarms and alerts to system stakeholders

Trending database

Suitable for electrified environment

AAR rules compliant

Routine track maintenance without removal
Suitable for standard track structure

Modular design reduces installation and maintenance times

Auto compensation for track modulus variations

KINETIX
# WCM

## GENERAL SPECIFICATIONS

**Capacity:** Train length – unlimited

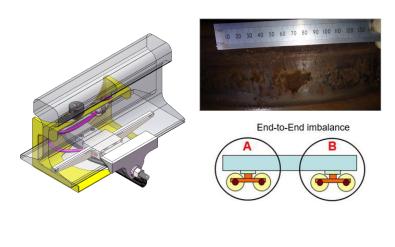**RF Tags:** Suitable for RF tagged vehicles (or virtual tagging reports)

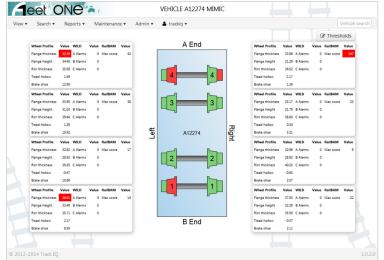**Alarms:** User configurable, delivered via SMS, email or message to Central Train Control

**Operating environment:** Main Line/ Depot

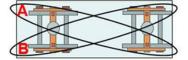**Fleet:** Mixed fleet – heavy haul, inter-modal and passenger

**Environment:** Hardware suitable for arctic, tropical, and desert environment

**Database:** WCM information presented by the FleetONE database



End-to-End imbalance



VEHICLE A12274 MIMIC



Diagonal Imbalance

Side-to-Side Imbalance

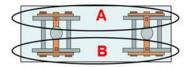## WABTEC CORPORATION

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