

Onboard Wheel Load/Lateral Pressure Measuring System



Onboard Measuring System



Wheel under Q/P Measurement

This onboard wheel load/lateral pressure measuring system is designed to analyze the running safety of a rapid transit train through automatic wheel load and lateral pressure measurement. It is indispensable especially for velocity improvement tests of bullet trains and existing trains. Wheel load (P) and lateral pressure (Q) are detected as electric signals by strain gages bonded to a platen or spoked wheel and are amplified by the dynamic strain amplifier. The amplified signals are transmitted to the PC through high-speed A-D converter, and then analyzed on the PC.

Strain gages can be connected in either of the following 2 ways:

- Intermittent connection
- Continuous connection

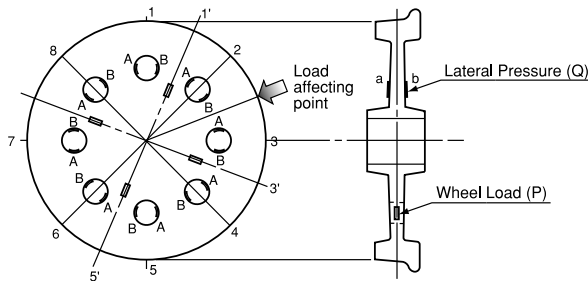
The analysis system calculates the coefficient of derailment (Q/P) in real time and records the results in the HDD while outputting them to the external analog recorder.

Either of the following 2 recorders can be connected optionally for real-time waveform recording.

- Analog recorder (chart recorder)
- Data recorder (magnetic tape recorder)

New Continuous Arrangement of Sensors (Strain Gages)

New Continuous System (C-type Rolled Wheel)



Wheel Load/Lateral Pressure Analysis Block Diagram

