

## **A Method for Detecting Vehicle Abnormality Using a Single-Link Traction Device**

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To detect abnormalities in railway vehicles, many sensors (such as for acceleration and temperature) are installed on the car body and bogie. However, the growing number of these sensors escalate installation and operation costs. Therefore, there is a critical need to achieve abnormality detection with high accuracy. To address this issue, we investigated an abnormality detection method based on the forces acting on the traction device, with the aim of improving detection performance while minimizing the number of sensors. In this paper, we report the results of tests conducted using actual vehicles as well as dynamo bench tests using actual full-scale bogies.