

Estimation Method of Seismic Damage of Bearings at Railway Structure by Displacement Sensor

Meguru ONODERA Yoshinori YOSHIDA Akihiro TOYOOKA
Gosuke HAYASHI Hiroju TAKAHASHI

In order to resume the operation after a large quake, it is necessary to investigate the presence or degree of damage at railway structures. The inspection of bearings needs great labors particularly when the bearings are in high and narrow places. This study proposes a method for detecting the seismic damage to bearings using a displacement sensor. The relationship between the degree of damage and running safety is investigated for a pad type rubber bearing and a steel type bearing. In addition, we develop a displacement sensor that detects the seismic damage of bearings and enables remote monitoring by wireless communication.