

Vibration Characteristics of a Wheel of a Running Railway Vehicle

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It is necessary to understand the vibratory properties of a track and a wheel in order to evaluate the rolling noise. In this paper, focusing on the vibration of a wheel, we measured the acceleration of the corrugated wheel by an impact test. Then we measured the acceleration of the wheel of a test vehicle which was running on a narrow gauge track by using accelerometers temporarily placed on the tire and web of the wheel. In addition, we investigated the vibratory characteristics of a wheel when it had a flat or it passed a turnout.