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Papers

Basic study on prediction of floor impact sound level of dry double floor

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In order to predict the floor impact sound level using the impedance method from the load distribution of the dry-type double floor support legs under localized concentrated load, a basic study was conducted by several laboratory experiments. First, the load distribution ratio of each support leg was obtained by the load distribution experiment. Next, the load distribution ratio was applied to the impedance method to calculate the prediction of the floor impact sound level, assuming that the impact force is input to the slab at multiple points. However, the prediction results deviated significantly from the measured values. In order to confirm the cause of the deviation, a small specimen experiment was conducted and the impact force exposure level was determined. The prediction calculation using this value showed a better correlation than the prediction calculation based on the load distribution rate.