

**The Evaluation of Earthquake-resistance and Reinforcement Method of the
Steel Bridge of Old Type Adopting the Pivot Bearings**

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Many old type over-road steel bridges in the Metropolitan area had been built in an important part of the transportation network. However, there are no specific methods for evaluation of earthquake-resistance of them. In this study, we have conducted an alternate load test of the pivot bearings which are widely used in such old type steel bridges. We have proposed a hysteresis model of the pivot bearings and a method for evaluation of earthquake-resistance of the steel bridges adopting the pivot bearings by using such hysteresis model. In addition, we have proposed several reinforcement methods of typical old type steel bridges, and have revealed the effectiveness of their methods by executing the dynamic analysis.