Method for Verifying Structural Safety of Steel/Composite Girder against Overturning and Lifting and Its Effect on Design

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In the design of railway steel girders, it is necessary to prevent overturning and lifting of the girder against possible forces acting on the girder. This paper outlines a verification method against the two limit states of girder overturning and girder lifting, and describes a revised method of calculating the lifting force that takes into account the vibration characteristics of the girder. A trial design of the bearing parts was also carried out using the revised calculation method. The result confirmed that the revised calculation made some parts of the bearing smaller.