

Impact of Tamping Work on Repeated Ballast Settlement

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It has been confirmed that the track irregularity gradually returns to its original shape after ballast tamping for the ballast track even under the same track and support structure conditions. However, the details of this mechanism are not revealed. Therefore, we surveyed an actual situation using track inspection data for this phenomenon. In addition, we performed tests with small model, discontinuum analysis for ballast density after ballast tamping and cyclic loading test to reveal the mechanism of the reversion in settlements after and before ballast tamping.