

Braking Force Estimation of Each Car

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Generally braking performance of train sets is evaluated by stopping distance or deceleration. However, stopping distance and deceleration are performance index established for a whole train set, and do not represent performance of each car individually. To analyze more in detail braking performance, it is useful to grasp braking force of each car. In this study, we devised a method to estimate braking force of each car based on the acceleration and coupler force by using coupling devices as a force sensor. From the results of the running test with a 18-car freight train by applying the devised method, it was found that it was possible to estimate braking performance of each car and that the estimated value was close to the theoretical value.