

Evaluation Method of the Flange Climb Derailment Considering the Wheel Rise

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In order to propose a new evaluation method complementing the traditional method by the derailment coefficient, the wheel rise measuring method by a two-dimensional laser sensor was developed, and the relationship between the derailment coefficient and the wheel rise was investigated using the results of wheel / rail contact analysis, simulation and running tests. As a result it was found out that the derailment coefficients obtained by filtering correspond to the change of the wheel rise; based on this result, the relationship between the derailment coefficient and the wheel rise was clarified. Further, an evaluation method of flange climb derailment using that relationship was proposed.