

Evaluation Results of the Effect on the Acceleration of an Axlebox Caused by the Shape of a Wheel Flat

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It is very important to evaluate the effect on the acceleration of an axlebox caused by a wheel flat. To understand the mechanism of the collision of the rotating wheel with a roller rig after losing contact with the roller rig, firstly, we conducted bench tests of a bogie installed on the roller rig, whose wheelset has a wheel flat. Then a simulation model was built and verified by comparing simulation results with experimental ones. This paper reports the effect on the vertical acceleration of axleboxes caused by the shape at the edge of the wheel flat.