



Derailment investigations of rail vehicles during collision accidents

By Hechao Zhou

Shaker Verlag Mrz 2014, 2014. Buch. Book Condition: Neu. 210x148x mm. Neuware - In this thesis the responses of railway vehicles during a collision accident have been systematically analysed. The main objective is to mitigate the injury severity by means of reasonable measures to prevent the collided vehicles from derailment. This research work has been carried out by using MBS software SIMPACK. Two collision scenarios from the standard EN 15227 have been adopted in this thesis as designed collision scenarios. Besides that, according to the analysis of collision accidents it points out the collisions between two freight trains, especially on curves, deserve to be taken into account. Therefore, this collision scenario has been designed and involved in this thesis. Collision simulations between two railway multiple units have been carried out in Chapter 5 to explore the causes of overriding phenomenon. Computer simulations demonstrate there are many contributory factors to the overriding collision. In addition to the initial vertical offset described in the standard EN 15227, vehicle pitching motion has great influence to the overriding collision. This pitching motion is also affected by some important factors, such as collision mass, pitching frequency and height of the centre of gravity above the...



[READ ONLINE](#)
[3.32 MB]

Reviews

Complete guideline for publication fans. I am quite late in start reading this one, but better then never. It is extremely difficult to leave it before concluding, once you begin to read the book.

-- **Llewellyn Terry**

Completely essential read book. I could possibly comprehended every little thing using this written e book. You wont sense monotony at at any moment of your own time (that's what catalogues are for relating to if you ask me).

-- **Rosendo Douglas DVM**