

Recent R&D Status on Rolling Stock Strength

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In RTRI, in the field of research on the rolling stock strength, R & D regarding lowering vibration of the rolling stocks by improving their rigidity and strength as well as that on improving rolling stock strength from the viewpoint of preventing accidents and failures before they occur are now on going. A part of the test results using full scale models or test pieces are described in this paper. They are including research themes on the impact strength of high rigid car bodies made of stainless steels, the evaluation of crack propagation and the development of non-destructive inspection method for the hollow non-induction hardened axles, the development of estimate method for actual load of axle bearings of Shinkansen vehicles and the development of detecting system for failures in axle bearings.