

Research on Aerodynamic Brake Device for High-Speed Train

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Abstract : This study is about an aerodynamic brake device for a high-speed train. In order to apply an aerodynamic brake device, an influence of the aerodynamic brake device on a high-speed train was studied aerodynamically, acoustically and dynamically. Wind tunnel test was conducted to predict an effect of braking distance reduction with a scale model of 1/30. Aerodynamic drag increases by 244% with a brake panel of a 90 degree angle. Braking distance for an emergency state was predicted to decrease by 13%.

Keywords : aerodynamic brake, braking distance, drag coefficient, high-speed train, wind-tunnel test

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