

Method of Enhancing Contact Performance by the Multi-segment Pantograph Head

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In developing a pantograph of a high speed train, reducing aerodynamic noise of the pantograph is one of the most important subjects. For reducing this noise, suitable configuration of the pantograph head, which has a smooth cross section profile, is proposed. However, the pantograph head with a smooth cross section profile and the conventional support system of the contact strip sometimes wrecks an undesirable lift force characteristic. Authors are developing a multi-segment pantograph head, which has a new support system for avoiding the abnormality of the lift force characteristic. This paper describes the configuration of a prototype of the multi-segment pantograph head and the validation result of this support system by model analysis and some bench test.