

**Effect of an Improved Control Technique of Wheel Tread Cleaner  
or Restraining Adhesion Phenomenon in Abrasive Block**

Shin-ichi SAGA

On Shinkansen trains, in which a one-step-brake is applied to decelerating from high-speed running to stop without releasing brake, a remarkable adhesion phenomenon often observed on the surface of abrasive block as installed in the wheel tread cleaner as well as tread brake shoe equipped with conventional trains. When such a phenomenon develops, wheels wear in concave, and in addition, wear fragments fall over rails. Eventually, it causes unusual vibrations and extraordinary sounds. Then, we have tried reproduction of wear fragment by a dynamo brake test stand to solve these problems. Consequently, we have found a control technique to restrain wear fragments. Moreover, we have confirmed effectiveness of the control techniques on a running test. This paper introduces the results of the dynamo test and the running test.