

## Experimental Rigs for Wheel /Rail Contact Research

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The article discusses the problem and importance of the study of the parameters of interaction between the wheel and the rail. The analysis of the test rig equipment for conducting research was carried out. Conventionally, the methods of conducting research are divided into 3 groups: physical and mathematical models, full-scale test rigs, field tests. Technical solutions for the modernization of the rig equipment of different types are proposed and the results of experimental studies using some of them are presented. For the approximation of rig equipment to the real conditions of operation it is proposed to cool the rail rollers through the use of the Ranque-Hilsch tube; to simulate the stiffness of the track on the rig it is effective to use leaf springs. Tests on a friction machine showed the effectiveness of sand electrification when supplying it into the contact of tribosystem.

**Keywords:** Rolling Rigs, Rail Rollers, Wheelset, Brake System, Adhesion

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