THERMO-PHYSICAL AND FRICTION PROPERTIES OF CONTACT OF A WHEEL WITH A RAIL.

J. M. LUZHNOV, A. V. CHICHINADZE, O. A. GOVORKOV, S. A. SOLOVIEV
Technical University-MADI, h 17 Kursowoy per SNJO, RUS 119034 Moscow, RUSSIA;
e-mail: tribenerg@slavmir.msk.ru

ABSTRACT

The contact of a wheel with a rail, found in operation conditions, has a component of friction forces which is formed as a result of the interaction of hanging indents of metal of a wheel with hanging indents of metal of a rail. The second component of force is the friction one which is formed as a result of shift efforts originating in dispersible dividing rigid bodies. It is found also in a zone of contact of a wheel with a rail. For most typical of compositions of surface dispersible pollution of tracks of driving of wheel on rails are defined their thermo-physical characteristics. It is exhibited that they differ considerably from the similar characteristics used now for the final pay of thermal processes in a zone of friction of a wheel with a rail and are capable to render the noticeable influence on allocation of thermal streams and temperature of a surface there.