

Dynamic Characteristics and Monitoring of Rubbing Surfaces Quality

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The work is devoted to identifications of dynamics of cycling wear process. The experimental realization of the problem has been carried out with use of tribometrical system Tribal-2. The circuit of contact interaction coupling has been analyzed. The offered method gives us an opportunity to consider a process of wearing as process with one input and one output. The usage of similar approaches allows to receive a transfer function of wearing process. The details of theoretical substantiation of the method and a new approach in modeling have been given. The results of experimental-analytical researches have shown, that the use of system dynamic characteristics allows to establish top and bottom borders of treated surfaces' quality in real time. There is a correlation of dynamic estimations of surfaces' quality with measured profilogrammes.

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