



Increase of life cycle due to application of surface coating methods

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Abstract:

It is natural that elements of a tribo-mechanical system (TMS) are exposed to various types of wearing processes during the exploitation period. Worn machine parts, in most cases, are considered to be a disposable material when replaced with new ones. The present need for savings in every aspect of the economy and the environment forces many producers to start thinking about regeneration of worn and damaged machine elements, especially with older high-priced machines. In these cases an appropriate coating method can provide desired surface properties and bring the machine back to work avoiding expensive new parts. The welding reparational method of profile wire production rolls, which represents the parts of rolling stand, is presented here as an example of the effective application of coating methods in this area. The choice of the corresponding method of welding and the regulation of the complete reparational technology are also considered. Results have shown that the increase of life cycle is significant. Behavior of regenerated rolls showed all exploitation characteristics that had original ones.

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