

Use of Overlaying Technology in Area of Increasing Ploughshares Service Life

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A soil processing belongs among basic steps in an area of a crop farming. The research was focused on increasing a service life of ploughshares by an overlaying technology. The research within field conditions was focused on innovations of ploughshares in the area of a conventional processing of the soil by means of the overlaying technology. A new functional profile was created by means of overlaying electrodes on the conventional tool in order to respect drainage of the processed soil, i.e. oblique overlays. The overlaying material was put in the most stressed places of the ploughshare, i.e. parallel with a face and an edge and these both in a front as well as in a back part. New functional surface was distinguished for a reinforcement of a top of the ploughshare edge and the back part of the ploughshare. Overlaying material was of carbide type OK Tubrodur 15.82. Within the tools service life testing under the field conditions the change of the tools shape and their mass loss were investigated. Statistical methods were used for evaluating of the experiments.

Keywords: soil, abrasive wear, functional surface, overlaying material

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