The Influence of Heat Treatment on Tool Properties Mulcher

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The paper describes the analysis of two different worn-out tools of mulch devices. Both tools have been decommissioned due to missing of WC tips that have been soldered to the tool body. The tools body showed a significant signs of deformation. The input data of tools have been missing therefore it was carried out chemical analysis, hardness measurement and evaluation of material microstructure. Of the data collected has been identified material of tools and the heat treatment was proposed to increase the tool life. Then again followed analysis of the material to detect changes in the structure and mechanical properties. Consequently, we propose alternatives for improving of tools life. The first option is that forging can be heat treated. The second option is the exposed surface of the tool body can be heat treated by hardening as we marked through visualization of the tools. These ways should contribute to increased resistance to abrasive wear of functional surfaces of the tools.

Keywords: mulching tools, abrasive wear, life cycle, heat treatment, format.

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