

Wear Measurement of Thermomechanical Parameters of the Metal Carbide

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Abstract : The threads and the circles on reinforced concrete are obtained by process of hot rolling with pebbles finishers in metal carbide which present a way of rolling around the outside diameter. Our observation is that this throat presents geometrical wear after the end of its cycle determined in tonnage. In our study, we have determined, in a first step, experimentally measurements of the wear in terms of thermo-mechanical parameters (Speed, Load, and Temperature) and the influence of these parameters on the wear. In the second stage, we have developed a mathematical model of lifetime useful for the prognostic of the wear and their changes.

Keywords : lifetime, metal carbides, modeling, thermo-mechanical, wear

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