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THEORETICAL AND EXPERIMENTAL RESEARCH REGARDING THE CORRELATION BETWEEN THE WEAR OF THE HELICAL CUTTING TOOLS AND THEIR AXIAL MOVEMENT SPEED

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Abstract

As a method, the toothing made by rolling the cog wheels, with axial movement of the helical cutting tool, is applied in practice for a long time. The method permits the use of the cutting tool on all of its length, resulting, in the end, a higher durability of the tool. In present, in a given case, the size of the step, and the number of parts on which the movement is made are established by tries, the possibility that these parameters being established in the designing stage not existing. In this study there are presented some experimental and theoretical researches which aimed, by one hand, to establish the way cogs' wear manifest, in the case of the cutting tools' axial movement, and by another, to establish some relations which permit the computing of parameters for the cutting tool's axial movement for establishing them in the design stage of the fabrication technology.

Keywords

Rolling, cog wheels, axial movement, cutting tool, wear.