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Generating Spherical Surface of Wear Drain in Cutting Metal by Finite Element Method Analysis

Authors : D. Kabeya Nahum, L. Y. Kabeya Mukeba

Abstract : In this work, the design of surface defects some support of the anchor rod ball joint. The future adhesion contact was rocking in manufacture machining, for giving by the numerical analysis of a short simple solution of thermo-mechanical coupled problem in process engineering. The analysis of geometrical evaluation and the quasi-static and dynamic states are discussed in kinematic dimensional tolerances onto surfaces of part. Geometric modeling using the finite element method (FEM) in rough part of such phase provides an opportunity to solve the nonlinearity behavior observed by empirical data to improve the discrete functional surfaces. The open question here is to obtain spherical geometry of drain wear with the operation of rolling. The formulation with (1 ± 0.01) mm thickness near the drain wear semi-finishing tool for studying different angles, do not help the professional factor in design cutting metal related vibration, friction and interface solid-solid of part and tool during this physical complex process, with multi-parameters no-defined in Sobolev Spaces. The stochastic approach of cracking, wear and fretting due to the cutting forces face boundary layers small dimensions thickness of the workpiece and the tool in the machining position is predicted neighbor to 'Yakam Matrix'.

Keywords : FEM, geometry, part, simulation, spherical surface engineering, tool, workpiece
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