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Checking Planetary Clutch on the Romania Tractor Using Mathematical Equations

Authors : Mohammad Vahedi Torshizi

Abstract : In this investigation, at first, bending stress, contact stress, Safety factor of bending and Safety factor of contact between sun gear and planet gear tooth was determined using mathematical equations. Also, The amount of Sun Revolution in, Speed carrier, power Transmitted of the sun, sun torque, sun peripheral speed, Enter the tangential force gears, was calculated using mathematical equations. According to the obtained results, maximum of bending stress and contact stress occurred in three plantary and low status of four plantary. Also, maximum of Speed carrier, sun peripheral speed, Safety factor of bending and Safety factor of contact obtained in four plantary and maximum of power Transmitted of the sun, Enter the tangential force gears, bending stress and contact stress was in three pantry and factors And other factors were equal in the two planets.

Keywords : bending stress, contact stress, plantary, mathematical equations
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