

ON THE GEOMETRICAL OPTIMIZATION OF AN INTERNAL CYCLOIDAL GEAR PAIR WITH ROLLERS

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Abstract: *The paper presents the modelling and the geometrical optimization for an internal cycloidal gear pair with rollers, used in a new variant of planetary reducer with a sun gear, proposed by the authors. The numerical simulation, based on a program written in the Matlab programming medium, allows the establishment of the optimal geometrical quantities for this gear pair, using as optimization parameters: the addendum modification coefficient x and the roller's radius r_r .*

Key words: *cycloidal gear pair with rollers, cycloid, coefficient of the gear's addendum modification, geometrical optimization.*

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