

QUASI-GLOBOID TEETH GEAR

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Basic characteristics, essence of the development. There was developed a diagram of shape formation of globoid teeth wheels by a cylindrical instrumental wheel that allows getting a completely new tooth profile that has linear contact at any gear ratios.

Patentable and competitive results. Ukraine patent № 55453 for the structure of the tooth profile of globoid teeth wheel. Applicant: Volodymyr Dahl East Ukrainian National University.

Comparison with world analogues. At the level of world analogues.

Economic attractiveness of the development for market promotion, implementation, parameters, price. In quasi-globoid teeth gear with linear character of contacting surfaces, load capacity increases compared with spiral teeth gears, and the cost price of the new method of teeth shape formation is 30% lower than of the existing methods.

Branches, ministries, departments, enterprises and organizations where the development results are going to be implemented. Engineering enterprises, technical systems, where teeth gears are used. The results of the development are implemented at OJSC “Luganskteplovoz” and PE “Lokomotyvservis”.

Development readiness level. 100%

Implementation results. The results of the development are used in the educational process in Volodymyr Dahl East Ukrainian National University in the disciplines “Theory of Technical Systems”, “Engineering Technology”, “Metal-Cutting Machines and Tools”.

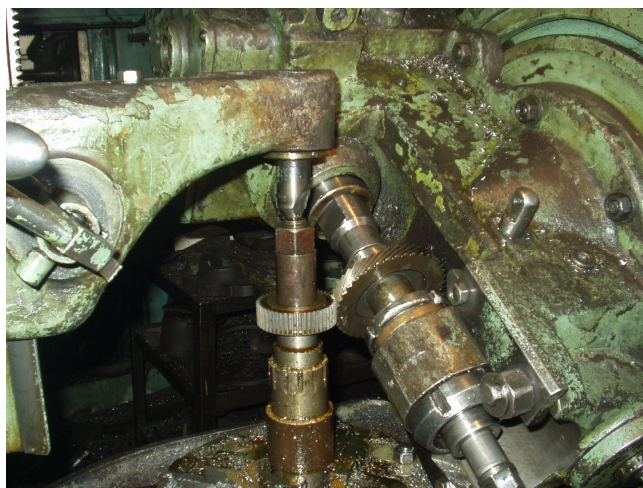
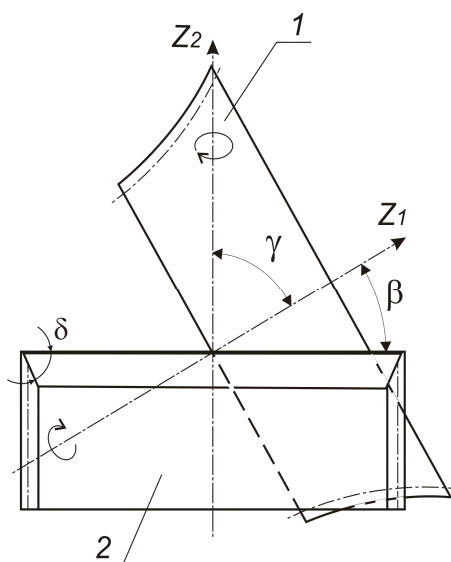


Diagram of quasi-globoid wheel manufacturing

1 - quasi-globoid blank; 2 – generating cutter