

The invention relates to the machining of precession gearwheel teeth, namely the tooth honing.

The process for honing of precession gearwheel teeth includes honing of gearwheel teeth (5) with a satellite tool (1), which simulates a real transmission and includes two gear rings with drive (3) and machining (2) rollers, on the surface of the latter being applied strips (4) of metallic bond with diamond or abrasive grains, distributed uniformly, between which are formed chip removal channels. The rollers (2, 3) are made in the form of a truncated cone with the apex towards the gear rings of the satellite tool (1). Between the satellite tool (1) and the gearwheel (5) is fed lubrication-cooling fluid. The satellite tool (1) is communicated a precession motion with continuous axial advance or periodic axial advance with its rotation consecutively in both directions, then the satellite tool (1) performs a free running consecutively in both directions. The strips (4) of metallic bond with diamond or abrasive grains deposited on the surface of the machining rollers (2) are uniformly distributed in the form of a spiral, with winding directions opposite to the previous roller.

Claims: 2

Fig.: 4

