

The invention relates to the mechanical engineering, in particular to the mechanical gears, and may be used for stepping-up the revolutions of the machine tool.

The precession step-up gear includes a body (1) with cover (4), wherein there are placed a central gear-wheel (2), meshing with a satellite gear wheel (5), installed onto a crank (8) and including conic rollers (6), mounted with the possibility of rotating onto axes (7), radially fixed therein, a gear coupling (11) joined with the satellite gear (5), as well as drive (10) and driven (9) shafts. Novelty of the invention consists in that it additionally contains a central gear-wheel (3), both being rigidly fixed: one into the body (1), the other - into the cover (4). The satellite gear wheel (5) is placed between them and meshes with both; at the same time the crank (8) is rigidly joined with the driven wheel (9). Onto the radial axes (7) of the satellite gear wheel (5) there are mounted additional conic rollers (12), placed into the grooves between the teeth of the half coupling (11), rigidly joined with the drive shaft (10), and the number of additional conic rollers (12) is equal to or smaller than the number of conic rollers (6), meshing with the central gear-wheels (2) and (3).

The grooves of the haft-coupling (11) may be made parallel or inclined about the axis of the drive shaft (10).

Clams: 3

Fig.: 8

