

MD.12.

Title	PRECESSIONAL PLANETARY TRANSMISSION WITH BALANCING OF UNBALANCED DRIVE SHAFT MASSES
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Description	The invention relates to machine construction, namely to precessional planetary transmissions. The precessional planetary transmission comprises a housing (1) with a flange (2), in which are located a satellite wheel (4) with two bevel gear crowns (6, 7), a driving shaft (9) with a crank (12), installed on bearings (13), a driven shaft (14), installed on bearings (15), and two central bevel gears, fixed (3) and movable (5), which interact with the satellite wheel (4) by means of the gear crowns (6, 7); the satellite wheel (4) is mounted on a spherical support (8), located on the driven shaft (14), in its precession center O, coaxial with the movable wheel (5); the satellite wheel (4) is equipped with a half-shaft (10), at the end of which bearings (11) are mounted, kinematically connected to the driving shaft (9) with a crank (12); in the crank (12), on the side, an inner cylindrical surface is made inclined at a nutation angle θ to the axis of the central wheels (3, 5), in which the half-shaft (10) of the satellite wheel (4) is installed, the axis of which passes through the precession center O, at the same time in the crank (12) axial conical holes are made for balancing the unbalanced masses of the driving shaft (9) with a crank (12). The technical project is developed and the industrial prototype is experimentally researched.