a 2012 0074

The invention relates to water power engineering, particularly to a hydraulic station, which comprises a low-power hydraulic turbine designed to produce electrical or mechanical power in individual farms for irrigation in areas located near rivers, using the kinetic energy of the flowing water of rivers.

The hydraulic turbine comprises a platform, fixed on a shore pier by means of a bearing structure with the possibility of regulating the position of the platform relative to the running water flow level. On the platform are placed a generator or a hydraulic pump and a multiplier, to which is linked a vertical axle, at the end of which is mounted a rotor, which includes radial horizontal bars (11), on which, in turn, are installed blades with hydrodynamic profile. Each blade consists of floating modules (12) with hydrodynamic profile, consisting of finned bodies (13). Between the modules (12) and on the upper and lower parts of the blades are horizontally placed screens (18) to direct the course of the water flow boundary layer, distant from each other. The peripheral circuit of screens (18) is made equidistant with respect to the profile of the blades. The modules (12) are assembled by means of locking elements (16) on a common axis (10) and movably attached to the end of the radial horizontal bars (11) of the rotor. The length of the axis (10) is selected depending on the depth of the river. The free ends of the modules (12) are interconnected by a common rod (17).

Claims: 1
Fig.: 6