

The invention relates to the hydraulic mechanical engineering, in particular to the construction of multistage centrifugal pumps, including the submersible ones used for pumping of liquids containing solid organic inclusions.

The multistage centrifugal pump includes stages which are enclosed into a common body, and each stage contains a close-type impeller, mounted onto a shaft, and, placed behind it, a radial guide device including two disks, one disk with a smaller diameter and the second one, separating one stage from another, with a greater diameter, having a centre hole. Each stage additionally contains a shell mounted onto the shaft and placed between the impeller and the guide device, onto the shell being placed the disk with a smaller diameter, and a thrust ring fixed onto the disk of the guide device of a greater diameter of the adjacent stage. The impeller of the centrifugal pump, placed between the shell and the thrust ring, is mounted with the possibility of axial movement between them, at the same time into the driving disk thereof, in the place of connection with the face of the shell, there are made equalizing holes. Onto the shell and the thrust ring faces, oriented towards the impeller, there is made for one central annular prominence. Each stage additionally contains a bush, placed coaxial to the body between the disks of the guide devices of a greater diameter of the adjacent stages, the lateral outer surface of which is adjoined with the lateral inner surface of the body. The bush is reinforced with metal rods which are uniformly placed around the circumference, the axes of which are parallel to the axes of the bush, and their length is smaller than the height of the bush.

Claims: 4

Fig.: 1