

The invention relates to the hydraulic machines, in particular to pumps, which can be used for liquid pumping.

The pump contains a body, consisting of sections separated by intermediate disks. Each section is provided with a branch, a rotor, installed onto the drive shaft, passing through the body with the possibility of axial displacement, packing elements, chambers and inlet and outlet covers. Novelty of the invention consists in that the sections additionally contain driving and driven disks. Onto the driven disk of the rotor it is installed a packing ring, which together with the intermediate disk form the thrust bearing and the frontal packing. The branch together with the shell form the radial bearing and the intersection packing. The distance between the external diameter of the branch and the pump body and the distance between the drive shaft and the shell may be determined from the relation:

$$\Delta k = \Delta b (1 + n),$$

where: Δk – the distance between the external diameter of the branch and the pump body; Δb – the distance between the drive shaft and the shell; n – the number of sections.

The result consists in the possibility of increasing the number of sections and the efficiency of the pump.

Claims: 2

Fig.: 1