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STUDY OF THE FLOW DIVIDER DYNAMICS WITH AN ELASTOMER REGULATOR

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The dynamic processes of the working fluid flow divider of hydraulic systems and hydraulic automation are considered. The design of the divider is original and protected by a patent and differs from traditional dividers by the presence of a regulatory body made of elastomer, which significantly simplifies the design of the divider reducing its cost and sensitivity to contamination of the working fluid by wear particles of hydraulic control devices. The regulatory body of elastomer allows you to combine the functions of regulating the parameters of operating modes and sealing the working cavities of the dividers. The presented results of the study of the influence of dynamic processes in the flow divider and compressibility of the working fluid on the accuracy of dividing the fluid flows define the criteria for these processes allowing a more rational development of the design of these regulators in accordance with the requirements in the hydraulic systems.

Keywords: flow divider, compressibility of the working fluid, flow and pressure of the working fluid of hydraulic systems.

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