

Title (en)
HYDRAULIC ACTUATOR WITH A SPRING ACTUATED FAIL-SAFE POSITION

Title (de)
HYDRAULISCHER STELLANTRIEB MIT EINER FEDER ZUR ÜBERFÜHRUNG IN EINER NOTFALLSTELLUNG

Title (fr)
ACTIONNEUR HYDRAULIQUE AVEC UN RESSORT ASSURANT UNE POSITION DE SÉCURITÉ

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Application
EP 15759729 A 20150901

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Abstract (en)
[origin: WO2016034582A1] The invention relates to a hydraulic device for driving an actuator to be hydraulically controlled or actuated, comprising a motor arranged in a motor housing, a compensating tank (31) for accommodating hydraulic fluid, and a hydraulic pump, which is arranged in a pump housing and driven by the motor, wherein the hydraulic pump is designed in such a way that the hydraulic pump permits conveyance of hydraulic fluid in two directions, namely in the forward direction and in the backward direction, wherein the hydraulic actuator comprises a drive cylinder, which has a first and a second cylinder chamber and a drive piston (3) arranged therebetween, to which drive piston a drive shaft (2) that can be displaced in the longitudinal direction is attached, wherein the device comprises a loading cylinder for an emergency closing spring (16), in which loading cylinder a loading cylinder chamber (12) and a loading piston (11) that can be coupled to the drive shaft (2) are arranged, wherein the emergency closing spring (16) can be loaded into a loaded or emergency-triggering readiness position by the loading piston (11), wherein the loading cylinder chamber (12) is connected to an outlet of the hydraulic pump in such a way that the loading cylinder chamber (12) can be filled with hydraulic fluid by means of the hydraulic pressure of the hydraulic pump and the loading piston can be transferred into a loading position as the emergency closing spring (16) is compressed and the loading piston can be locked there hydraulically by means of check valves (36, 37), and wherein a controlled seat valve (50) is connected to an inflow/outflow opening of the loading cylinder chamber, by means of which seat valve the emergency closing spring (16) can be transferred from the loaded readiness position into an emergency-triggering opening position, wherein both the hydraulic fluid that is contained in the loading cylinder chamber (12) and holds the emergency closing spring (16) in the readiness position and the hydraulic fluid contained in the first cylinder chamber can be discharged via the controlled seat valve (50).

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