

Title (en)
PILOT-CONTROLLED COOLANT VALVE

Title (de)
VORGESTEUERTES KÜHLMITTELVENTIL

Title (fr)
SOUPAPE À LIQUIDE DE REFROIDISSEMENT PILOTÉE

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Application
EP 20714474 A 20200312

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Abstract (en)
[origin: WO2020182257A1] The invention relates to a pilot-controlled coolant valve (1) comprising: a pressure chamber (7) having an in-flow (2) and an out-flow (4) for the coolant; a pressure release chamber (8); a control opening (9) which connects the pressure release chamber to the pressure chamber; a pressure release channel (10) which permanently connects the pressure release chamber to the out-flow; an actuator (11) having a plunger (12); a control piston (13) stroke-actuated by the plunger in the direction of the in-flow, which closes the control opening during the stroke actuation by the plunger, except for a radial sealing gap between the outer casing surface (27) of the control piston and the inner casing surface (28) of the control opening; a closing piston (15) moving in the pressure chamber, wherein the axial end sides (16, 17) thereof delimit a stagnation pressure chamber (18) on one side, into which the control opening feeds, and delimits a through-flow chamber (19) on the other side, into which the in-flow feeds, wherein a pressure channel (22) passing through the closing piston permanently connects the stagnation pressure chamber to the in-flow; and a valve seat (23) which limits the feed-in of the in-flow in the through-flow chamber, wherein the control piston stroke-actuates the closing piston in the direction of the valve seat, and wherein the closing piston sealingly rests on the valve seat when the control opening is closed and interrupts the connection of the through-flow chamber with the in-flow.

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Citation (search report)
See references of WO 2020182257A1

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