

Title (en)
HYDRAULICALLY ACTUATED REGULATING VALVE FOR A VEHICLE BRAKE SYSTEM, AND ASSOCIATED VEHICLE BRAKE SYSTEM

Title (de)
HYDRAULISCH BETÄTIGTES REGELVENTIL FÜR EIN FAHRZEUGBREMSSYSTEM UND ZUGEHÖRIGES FAHRZEUGBREMSSYSTEM

Title (fr)
SOUPAPE DE RÉGULATION À COMMANDE HYDRAULIQUE POUR UN SYSTÈME DE FREINAGE DE VÉHICULE ET SYSTÈME DE FREINAGE DE VÉHICULE CORRESPONDANT

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Abstract (en)
[origin: WO2013068181A1] The invention relates to a hydraulically actuated regulating valve (1) for a vehicle brake system, having a first fluid port (34) and a second fluid port (36) and a control chamber (44), wherein a longitudinally movable plunger (10) with a sealing geometry (12) is loaded with a spring force and held in an initial position by a compression spring (16), wherein a pressure built up in the control chamber (44) acts counter to the spring force of the compression spring (16) and moves the plunger (10) with the sealing geometry (12) from the initial position into an end position, wherein the sealing geometry (12) interacts with a valve seat (32.1) which is arranged in a valve body (32) in order to limit an effective pressure at the second fluid port (36) to a predefinable maximum pressure value, wherein a fluid connection between the first fluid port (34) and the second fluid port (36) is completely opened up in a first end position of the plunger (10) and is completely shut off in a second end position of the plunger (10), and to a corresponding vehicle brake system. According to the invention, the plunger (10) is guided in a first sleeve (20), and the valve body (32) and the first and second fluid ports (34, 36) are arranged in a second sleeve (30) which is connected in a fluid-tight manner to the first sleeve (20), wherein the plunger (10), in the region of the control chamber (44), forms an effective first diameter (D1) which, in conjunction with an applied pressure, assists a movement of the plunger (10) in a first direction, and in the region of the second sleeve (30), forms an effective second diameter (D2) which is equal to or smaller than the first diameter (D1) and which, in conjunction with an applied pressure, assists a movement of the plunger (10) in a second direction which opposes the first direction.

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