

Title (en)

CONTROL VALVE FOR A FUEL INJECTOR COMPRISING A PRESSURE EXCHANGER

Title (de)

SCHALTVENTIL FÜR EINEN KRAFTSTOFFINJEKTOR MIT DRUCKÜBERSETZER

Title (fr)

SOUPAPE DE COMMANDE POUR UN INJECTEUR DE CARBURANT COMPRENANT UN DISPOSITIF MULTIPLICATEUR DE PRESSION

Publication

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Application

EP 04738706 A 20040617

Priority

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Abstract (en)

[origin: WO2005015002A1] The invention relates to a servo valve (3) for a fuel injector (1), comprising a pressure exchanger (2) having a working chamber (7) and a differential pressure chamber (8) which are separated by means of a pressure relay piston (10, 11). A control chamber (33) of the servo valve (3) can be connected to a first return pipe (35) on the low pressure side by means of an actuator (4), and the differential pressure chamber (8) of the pressure exchanger (2) can be connected to a second return pipe (37) on the low pressure side or a return pipe system consisting of the return pipes (35, 37). A first sealing seat (38) is formed on a first servo valve piston (30). A second servo valve piston (41) embodied as a sealing sleeve is received on the first servo valve piston (30), forming a second valve seat (50) with a valve housing (29). Said second valve seat closes earlier than the first sealing seat (38) when the pressure is relieved in the control chamber (33) during a small stroke of the piston. When the control chamber (33) is subjected to pressure, the second sealing seat (50) only opens once the first sealing seat (38) is closed.

IPC 1-7

F02M 59/36; **F02M 47/02**; **F02M 57/02**; **F02M 63/02**; **F02M 61/20**; **F02M 59/46**

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