

Title (en)
VALVE FOR CONTROLLING FLUIDS

Title (de)
VENTIL ZUM STEUERN VON FLÜSSIGKEITEN

Title (fr)
SOUPAPE POUR COMMANDER LE PASSAGE DE LIQUIDES

Publication
EP 1135593 B1 20050112 (DE)

Application
EP 00974318 A 20000909

Priority
• DE 0003138 W 20000909
• DE 19946833 A 19990930

Abstract (en)
[origin: WO0123743A1] The invention relates to a valve (1) for controlling fluids comprising a piezoelectric unit (3) for actuating a valve member (2) which can be axially displaced and inserted into a bore (8) of a valve body (9) and is provided with a valve closing member (13) at one end which cooperates with at least one seat (14, 15) disposed on a valve body (9) in order to open and close a valve (1). The valve closing member (13) separates a low pressure region (16) having a system pressure (p_sys) from a high pressure region (17). A filling device (26) is provided in the shape of a channel (27) with a throttling bore (28) in order to compensate for a leaked volume from the low pressure region (16) caused by drawing off hydraulic liquid from the high pressure region (17). The diameter thereof is selected in such a manner that a fluid volume flowing past said throttle bore (28) and emanating from the high pressure region (17) compensates for the leaked amount from the low pressure region when a defined minimum high pressure (p_R_min) prevails.

IPC 1-7
F02M 45/04; **F02M 47/02**; **F02M 59/46**

IPC 8 full level
F02M 47/00 (2006.01); **F02M 45/04** (2006.01); **F02M 47/02** (2006.01); **F02M 51/00** (2006.01); **F02M 59/46** (2006.01); **F02M 61/16** (2006.01); **F02M 61/20** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP US)
F02M 45/04 (2013.01 - EP US); **F02M 47/027** (2013.01 - EP US); **F02M 63/0026** (2013.01 - EP US); **F02M 2200/304** (2013.01 - EP US); **F02M 2200/703** (2013.01 - EP US)

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
WO 0123743 A1 20010405; AT E287039 T1 20050115; CZ 20011879 A3 20020417; DE 19946833 A1 20010503; DE 19946833 C2 20020221; DE 50009213 D1 20050217; EP 1135593 A1 20010926; EP 1135593 B1 20050112; JP 2003510506 A 20030318; KR 20010101059 A 20011114; US 6530555 B1 20030311

DOCDB simple family (application)
DE 0003138 W 20000909; AT 00974318 T 20000909; CZ 20011879 A 20000909; DE 19946833 A 19990930; DE 50009213 T 20000909; EP 00974318 A 20000909; JP 2001527101 A 20000909; KR 20017006490 A 20010524; US 83160301 A 20010510