

Title (en)  
PILOT CONTROLLED SERVO-VALVE

Title (de)  
VORGESTEUERTES SERVOVENTIL

Title (fr)  
SERVO-SOUPAPE A COMMANDE PILOTE

Publication  
**EP 0828945 A1 19980318 (DE)**

Application  
**EP 95937068 A 19951113**

Priority  
• EP 9504454 W 19951113  
• LU 88558 A 19941116

Abstract (en)  
[origin: WO9615373A1] A pilot controlled servo-valve has four main flow connections (20, 22, 24, 26), an axially sliding main control piston (18) with four control edges (28', 30', 32', 34') and a front restoring spring (78) that defines a spring-centred middle position of the main control piston (18). A control sleeve (12) has ring-shaped openings (20', 22', 24') for the first, second and third main flow connections (20, 22, 24) and a front opening (26') for the fourth main flow connection (26). A first front face of the main control piston (18) is axially opposed to said opening (26'). A pressure compensating surface (60) is formed by the second front face of the main control piston (18) in a spring chamber (52). The main control piston (18) applies the pressure in the fourth main flow connection on said pressure compensating surface (60) through a pressure relief channel (44). A transverse bore (46) connects said pressure relief channel to an auxiliary connection chamber (36) connected to the third main flow connection (24) by the fourth control edge (34'). This valve may be space-savingly integrated in a hydraulic block and has a clearly defined middle position, as well as a remarkable dynamic performance.

IPC 1-7  
**F15B 13/042**

IPC 8 full level  
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CPC (source: EP US)  
**F15B 13/0402** (2013.01 - EP US); **Y10T 137/86606** (2015.04 - EP US); **Y10T 137/86614** (2015.04 - EP US)

Citation (search report)  
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**WO 9615373 A1 19960523**; AT E224012 T1 20020915; AU 3928595 A 19960606; CA 2205441 A1 19960523; CA 2205441 C 20050208; CN 1070584 C 20010905; CN 1163657 A 19971029; DE 59510375 D1 20021017; EP 0828945 A1 19980318; EP 0828945 B1 20020911; JP 3638286 B2 20050413; JP H10508679 A 19980825; LU 88558 A1 19960715; RU 2153105 C2 20000720; US 5896890 A 19990427

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