

Title (en)
FLOW CONTROL VALVE

Title (de)
STROMVENTIL

Title (fr)
VALVE DE RÉGULATION DE DÉBIT

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Application
EP 16152676 A 20160126

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Abstract (en)
The invention relates to a flow control valve (1) adapted for use as a flow-dividing and flow-combining valve in hydraulic devices, comprising: - a valve body (2, 2', 2'') having a first longitudinally extending bore (20), - an outer spool (3) slidably positioned within said bore (20), said outer spool (3) having an axially extending passageway (30) therethrough, - a pair of axially extending inner spools (4) slidably positioned within said passageway (30), said valve body (2, 2', 2'') having a first port (21) and a pair of second ports (22), said outer spool (3) having at least a first opening (34) communicating with the first port (21) and with the passageway (30), and at least two pairs (350) of second openings therethrough. According to the invention, at least one second opening (35a) of each pair (350) is of non-constant longitudinal section, said section narrowing from the outer face (36) of the outer spool (3) on at least a part of the thickness (t) of said second opening (35a), so that a lateral side of said second opening (35a) offers an obstacle where a part of the fluid flow entering said second opening (35a) crashes before it enters the inner spool (4).

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F15B 13/022 (2013.01); **F15B 2013/008** (2013.01)

Citation (applicant)
US 3554213 A 19710112 - YOSHINO MASAO

Citation (search report)
• [ID] US 3554213 A 19710112 - YOSHINO MASAO
• [XY] JP S4730019 U 19721205
• [Y] JP S5676704 A 19810624 - UCHIDA YUATSU KIKI KOGYO KK
• [Y] EP 2476915 A1 20120718 - FLUIDESIGN [FR]
• [A] GB 1123256 A 19680814 - SHORT BROTHERS & HARLAND LTD
• [Y] "Flow Divider / Combiner SAE 16-Cartridge ? 350 bar ST16-01", HANDBOOK HYDAC INTERNATIONAL,, 1 January 2004 (2004-01-01), pages 1 - 2, XP007909931, DOI: [HTTP://PDDOCSERV/SPECDOCS/DATA/HANDBOOKS/HYDAC/2004/E5967-1-0-07-04_ST16-01.PDF](http://PDDOCSERV/SPECDOCS/DATA/HANDBOOKS/HYDAC/2004/E5967-1-0-07-04_ST16-01.PDF)

Cited by
CN107489787A; FR3055939A1

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