

Title (en)
Valve combination

Title (de)
Ventilkombination

Title (fr)
Combinaison de soupapes

Publication
EP 1344945 A3 20040616 (DE)

Application
EP 03090044 A 20030220

Priority
DE 10211299 A 20020314

Abstract (en)
[origin: EP1344945A2] The valve combination consists of pressure scales, a load holding valve and a proportional valve, the piston of which can move axially in borings in one or more housings containing input and output cavities. The proportional valve (2) has a hollow piston, and the load holding valve (3) and pressure scales (1) have stacks of laminar disks (6) to relieve the main part of excess energy.

IPC 1-7
F15B 11/00; **F15B 11/044**; **F16K 47/08**

IPC 8 full level
F15B 11/00 (2006.01); **F15B 11/044** (2006.01); **F15B 13/00** (2006.01)

CPC (source: EP)
F15B 11/003 (2013.01); **F15B 11/044** (2013.01); **F15B 2013/008** (2013.01); **F15B 2211/30515** (2013.01); **F15B 2211/30535** (2013.01); **F15B 2211/3111** (2013.01); **F15B 2211/3144** (2013.01); **F15B 2211/31576** (2013.01); **F15B 2211/327** (2013.01); **F15B 2211/329** (2013.01); **F15B 2211/46** (2013.01); **F15B 2211/50572** (2013.01); **F15B 2211/50581** (2013.01); **F15B 2211/5153** (2013.01); **F15B 2211/528** (2013.01); **F15B 2211/6054** (2013.01)

Citation (search report)

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- [A] EP 0902194 A1 19990317 - HEILMEIER & WEINLEIN [DE]
- [A] US 4018245 A 19770419 - BAUMANN HANS D
- [AD] DE 19547687 A1 19970626 - REXROTH MANNESMANN GMBH [DE]
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CN106855070A; US8042451B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT SE SI SK TR

DOCDB simple family (publication)
EP 1344945 A2 20030917; **EP 1344945 A3 20040616**; **EP 1344945 B1 20061025**; AT E343727 T1 20061115; DE 10211299 A1 20031009; DE 10211299 B4 20050331; DE 50305457 D1 20061207; ES 2272889 T3 20070501

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