

Title (en)
Flow path switching valve

Title (de)
Strömungswegumschaltventil

Title (fr)
Vanne de commutation de trajet d'écoulement

Publication
EP 2388541 A3 20150429 (EN)

Application
EP 11154126 A 20110211

Priority
JP 2010112976 A 20100517

Abstract (en)
[origin: EP2388541A2] A pressure equalizing path is provided in the center of the piston 2, and a sub valve 25 is disposed in the pressure equalizing path. When the piston 2 is moved toward a cap 12, the sub valve 25 closes an opening of an exhaust path 12a at a sub valve seat, and opens the pressure equalizing path.

IPC 8 full level
F25B 41/04 (2006.01); **F16K 11/056** (2006.01)

CPC (source: EP US)
F25B 41/26 (2021.01 - EP US)

Citation (search report)

- [A] US 2976701 A 19610328 - GREENAWALT FREDERICK A
- [A] US 4966194 A 19901030 - NAKATSUKASA KEIICHIROH [JP], et al
- [A] US 3400736 A 19680910 - BASTLE CLIFFORD F, et al
- [A] JP S5958277 A 19840403 - MATSUSHITA ELECTRIC IND CO LTD
- [AD] JP 2009068695 A 20090402 - SAGINOMIYA SEISAKUSHO INC

Cited by
CN110410533A

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2388541 A2 20111123; EP 2388541 A3 20150429; EP 2388541 B1 20160706; CN 102252114 A 20111123; CN 102252114 B 20130213; JP 2011241870 A 20111201; JP 5080612 B2 20121121

DOCDB simple family (application)
EP 11154126 A 20110211; CN 201110109183 A 20110425; JP 2010112976 A 20100517