

Title (en)
Non-return valve for metering pumps

Title (de)
Rückschlagventil für Dosierpumpen

Title (fr)
Clapet anti-retour pour pompes de dosage

Publication
EP 1906019 A3 20091028 (DE)

Application
EP 07018249 A 20070918

Priority
DE 102006045448 A 20060919

Abstract (en)
[origin: EP1906019A2] The valve (10) has a valve body (18) engaging a position closing a passage and another position releasing a passage hole of a valve housing (12), and a coil spring (24) for applying a closing force on the valve body. The closing force pre-tensions the valve body into its position closing the passage hole. The valve body is designed and arranged in the valve housing such that a parallel effective contact surface of the valve body aligned in its position closing for free cross-section is null for the counter pressure in a counter pressure area (36). An independent claim is also included for an injection device for a phytosanitary technology, with a dosing pump.

IPC 8 full level
F16K 15/02 (2006.01); **B05B 7/32** (2006.01); **F04B 53/10** (2006.01)

CPC (source: EP)
B05B 7/2486 (2013.01); **B05B 7/32** (2013.01); **B05B 12/1418** (2013.01); **F04B 53/10** (2013.01); **F04B 53/102** (2013.01); **F04B 53/1022** (2013.01)

Citation (search report)

- [XY] DE 102004020275 A1 20051020 - BRUENINGHAUS HYDROMATIK GMBH [DE]
- [Y] US 3631887 A 19720104 - SCHLECHTRIEM WERNER, et al
- [Y] DE 102004047585 A1 20060330 - LECHLER GMBH [DE]
- [A] US 3980230 A 19760914 - PRINGLE ORVI C, et al
- [A] DE 10014191 A1 20010927 - STEIN GUENTER [DE]

Cited by
CN114060574A; CN103452831A; WO2014133712A1; WO2009153085A1; US10036378B2; US11779006B2; EP2611289B1

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

Designated extension state (EPC)
AL BA HR MK RS

DOCDB simple family (publication)
EP 1906019 A2 20080402; **EP 1906019 A3 20091028**; DE 102006045448 A1 20080327

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EP 07018249 A 20070918; DE 102006045448 A 20060919