

Title (en)

ARRANGEMENT IN A PNEUMATIC CYLINDER

Title (de)

ANORDNUNG IN EINEM PNEUMATIKZYLINDER

Title (fr)

AGENCEMENT DANS UN VÉRIN PNEUMATIQUE

Publication

**EP 4226051 A4 20231115 (EN)**

Application

**EP 20956627 A 20201008**

Priority

FI 2020050664 W 20201008

Abstract (en)

[origin: WO2022074284A1] The invention relates to an arrangement in a pneumatic cylinder comprising a rear end (2), a front end (4) and a pressure space (11) there between, the pressure space (11) containing a piston (20) reciprocating in the pressure space (11) and having a piston rod (5) whose free end projects, through a structure (17) guiding the piston rod (5), out of the pressure space (11), wherein a play (25) is provided between the guiding structure (17) and the piston rod (5) to conduct the pressure medium out of the pressure space (11) during the movement of the piston rod (5). Further, the pneumatic cylinder comprises a first pressure medium flow channel (9) leading to a first side of the piston (20) and a second pressure medium flow channel (12) leading to a second side of the piston, as well as structures damping the reciprocating movement of the piston (20) at the extreme ends of the movement, including at least dampers (16 and 22). The structures damping the reciprocating movement of the piston (20) at the extreme ends of the movement comprise a first structure (24) and a second structure (18) restricting the amount of flow leaving during the damping.

IPC 8 full level

**F15B 15/22** (2006.01); **F15B 15/14** (2006.01)

CPC (source: EP FI)

**F15B 15/1433** (2013.01 - EP); **F15B 15/1442** (2013.01 - EP); **F15B 15/1452** (2013.01 - EP); **F15B 15/1457** (2013.01 - EP);  
**F15B 15/1461** (2013.01 - EP); **F15B 15/22** (2013.01 - FI); **F15B 15/222** (2013.01 - EP); **F15B 15/226** (2013.01 - EP);  
**F15B 2211/8855** (2013.01 - EP)

Citation (search report)

- [X] JP H01172602 A 19890707 - MATSUSHITA ELECTRIC IND CO LTD
- [A] GB 815972 A 19590708 - RENAULT
- [A] DE 102017206298 A1 20181018 - FESTO AG & CO KG [DE]
- See also references of WO 2022074284A1

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**WO 2022074284 A1 20220414**; EP 4226051 A1 20230816; EP 4226051 A4 20231115; FI 13127 Y1 20220225

DOCDB simple family (application)

**FI 2020050664 W 20201008**; EP 20956627 A 20201008; FI U20214106 U 20211008