

Title (en)
ROTARY-TYPE CYLINDER DEVICE

Title (de)
DREHZYLINDERVORRICHTUNG

Title (fr)
DISPOSITIF DE CYLINDRE DE TYPE ROTATIF

Publication
EP 3636920 A1 20200415 (EN)

Application
EP 18864064 A 20180906

Priority
• JP 2017193293 A 20171003
• JP 2018032991 W 20180906

Abstract (en)
Provided is a rotary cylinder device in which a piston body of a piston unit is shortened in the lengthwise direction to reduce the installation area and number of guide bearings is reduced to the required minimum so as to decrease number of parts, thereby promoting a reduction in size and improving the durability of the device. As a solution, a plurality of guide shafts (24) which are disposed parallel to an input/output shaft (a first input/output shaft (4a), a second input/output shaft (4b)) are assembled in a case body (3) which holds a cylinder (5) in which first and second piston sets (14), (15) move reciprocally. A first guide bearing (25), which abuts both side surfaces of a first piston body (14a) and receives only lateral pressure generated by the reciprocal movement, and a second guide bearing (26), which abuts both side surfaces of a second piston body (15a) and receives only lateral pressure generated by the reciprocal movement, are assembled coaxially and separated in an axial direction on each guide shaft (24).

IPC 8 full level
F04B 27/02 (2006.01); **F03C 1/053** (2006.01); **F04B 1/053** (2020.01)

CPC (source: EP US)
F03C 1/0428 (2013.01 - EP US); **F03C 1/053** (2013.01 - EP); **F04B 1/0408** (2013.01 - US); **F04B 1/0439** (2013.01 - EP US); **F04B 1/053** (2013.01 - EP); **F04B 27/02** (2013.01 - EP US); **F04B 27/0442** (2013.01 - EP US); **F04B 27/053** (2013.01 - EP); **F04B 1/0413** (2013.01 - US); **F04B 1/053** (2013.01 - US); **F04B 9/045** (2013.01 - US); **F04B 35/04** (2013.01 - US); **F04B 39/12** (2013.01 - US)

Designated contracting state (EPC)
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Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3636920 A1 20200415; **EP 3636920 A4 20200603**; **EP 3636920 B1 20210224**; CN 111051696 A 20200421; CN 111051696 B 20220614; JP 2019065793 A 20190425; JP 6281853 B1 20180221; US 2020208619 A1 20200702; WO 2019069619 A1 20190411

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