

Title (en)

WORKING CYLINDER WITH CUSHIONED END-STROKE

Title (de)

ENDLAGENGEDÄMPFTER ARBEITSZYLINDER

Title (fr)

CYLINDRE DE TRAVAIL À AMORTISSEMENT EN POSITION FINALE

Publication

EP 4081714 A1 20221102 (DE)

Application

EP 20848691 A 20201218

Priority

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- DE 2020000339 W 20201218

Abstract (en)

[origin: WO2021129900A1] The invention relates to a working cylinder with a cushioned end-stroke. The piston unit has a piston main part and a ring body. The exterior of the ring body receives a piston ring with a piston ring gap, and the ring opening of the ring body receives a guiding pin of the piston main part, wherein a ring gap is formed between the ring body and the guiding pin, and the ring body has axial and radial play relative to the piston main part. The ring body has an axial ring surface on the piston main part side, and the piston main part has an axial counter ring surface on the ring body side opposite the axial ring surface. The piston unit is designed such that during an inward movement into the cushioning zone, the piston ring passes axially over the pressure medium connection and the piston unit encloses a damping pressure medium volume, and the the piston unit is designed to be in a first operating state during an inward movement and a second operating state during an outward movement. In the first operating state, the axial ring surface on the piston main part side and the axial counter ring surface ring body side lie against each other and form a seal plane, and the piston ring gap is configured for a throttled outflow of the damping pressure medium volume; and in the second operating state, the axial ring surface on the piston main part side and the axial counter ring surface ring body side have an axial gap for a pressure medium inflow.

IPC 8 full level

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