

Title (en)
Rotational working cylinder.

Title (de)
Drehantriebszylinder.

Title (fr)
Cylindre d'entrainement rotatif.

Publication
EP 0266702 A1 19880511 (DE)

Application
EP 87116015 A 19871030

Priority
US 92705786 A 19861104

Abstract (en)
The known rotational working cylinders used e. g. in the robot techniques comprise a shaft arranged concentrically within the working cylinder and driven out of the working cylinder with at least one end of it, a piston being divided into two piston portions perpendicularly to the shaft and the piston portions being held in tensed position in respect to each other, forced trajectories between the working cylinder and the piston portions as well as between the piston portions and the shaft, respectively, wherein at least one of the forced trajectories is formed as a longitudinal spiral path. According to the improvement in this invention, the piston portions (3, 4) are locked in relation to each other for maintaining the tensed position of the piston portions (3, 4) in all operational positions and loads of the working cylinder (1), for the purpose of which a locking means is provided between the piston portions (3, 4), and this locking means is operated by the hydraulic working agent of the rotational working cylinder (1). Alternatively, a sealing plate (32) is arranged between the two piston portions (3, 4), and the tensed position of the piston portions (3, 4) is established by the interconnection of the sealing plate (32). The sealing plate has a middle opening and an outer periphery, both being movable on the forced trajectories of the rotational working cylinder (1) in a sealed manner, respectively.

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CPC (source: EP US)
F15B 15/068 (2013.01 - EP US); **Y10T 74/19902** (2015.01 - EP US)

Citation (search report)
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Designated contracting state (EPC)
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