

Title (en)

COMPRESSED FLUID CYLINDER HAVING A SLOTTED CYLINDER CLOSED AT BOTH ENDS

Publication

EP 0142665 B1 19870114 (DE)

Application

EP 84111141 A 19840919

Priority

DE 3338305 A 19831021

Abstract (en)

[origin: US4617857A] A longitudinally-slotted pressure cylinder, closed on both ends, has a longitudinal slot formed along a substantial portion of the length of the housing, and a piston which is movable within a chamber formed in the housing. A driver member is eccentrically attached to the piston, the driver member having an outer portion extending outward from the slot and an inner portion which is formed substantially to the contour of the inner chamber wall. The driver member attaches to the piston at a point distant from the longitudinal slot. A flexible sealing arrangement is disposed along the longitudinal slot such that, fluid pressure used to move the piston cannot escape through the longitudinal slot as the piston and driver member travel along the slot. The flexible sealing arrangement has a fastening portion connected on the cylinder housing on one side of the slot, an S-shaped sealing portion which extends through the slot, and a flat sealing portion formed at the end of the S-shaped sealing portion within the chamber. The S-shaped sealing portion is prestressed and elastically retains the flat sealing portion against the chamber wall. As the driver member is moved, a bend in the driver member lifts the S-shaped sealing portion off the slot, the bend of the driver member contacting the S-shaped sealing portion to maintain the integrity of the chamber.

IPC 1-7

F15B 15/08

IPC 8 full level

F15B 15/08 (2006.01)

CPC (source: EP US)

F15B 15/082 (2013.01 - EP US)

Citation (examination)

- EP 0069199 A1 19830112 - PROMA PROD & MARKETING GMBH [DE]
- DD 83708 A

Designated contracting state (EPC)

AT CH DE FR GB IT LI NL SE

DOCDB simple family (publication)

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