

Title (en)

Compressed fluid cylinder having a slotted cylinder closed at both ends.

Title (de)

Druckmittelzylinder mit einem endseitig verschlossenen, längsgeschlitzten Zylinderrohr.

Title (fr)

Cylindre à fluide de pression ayant un cylindre fendu fermé aux deux extrémités.

Publication

EP 0142665 A1 19850529 (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.

Abstract (de)

Bei einem Druckmittelzylinder mit einem endseitig verschlossenen, längsgeschlitzten Zylinderrohr (13,24), in dem ein abgedichteter Kolben längsverschieblich geführt ist, und mit einem vom Kolben getragenen, durch den Längsschlitz (16) nach außen ragenden Mitnehmerglied (19) ist ein spezielles Dichtband (28) zur beidseitigen Abdichtung des Längsschlitzes (16) vorgesehen. Das Dichtband (28) ist im Bereich des Längsschlitzes (16) an der einen Seite (25) des Längsschlitzes (16) befestigt. Das Mitnehmerglied (19) ist dabei so angeordnet, daß es zwischen der anderen Seite (31) des Längsschlitzes (16) und dem Dichtband (28) bewegbar ist.

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 (search report)

[A] DE 1957443 A1 19700611 - INGENJOERS MECMATOEC AB FA

Designated contracting state (EPC)

AT CH DE FR GB IT LI NL SE

DOCDB simple family (publication)

EP 0142665 A1 19850529; EP 0142665 B1 19870114; AT E24952 T1 19870115; DE 3338305 A1 19850502; DE 3462065 D1 19870219; US 4617857 A 19861021

DOCDB simple family (application)

EP 84111141 A 19840919; AT 84111141 T 19840919; DE 3338305 A 19831021; DE 3462065 T 19840919; US 66155584 A 19841017