

Title (en)

PUMP WITH RECIPROCATING HIGH PRESSURE SEAL AND VALVE FOR VEHICLE BRAKING SYSTEMS

Title (de)

PUMPE MIT HOCHDRUCK-HUBDICHTUNG UND VENTIL FÜR FAHRZEUGBREMSSYSTEME

Title (fr)

POMPE A JOINT HAUTE PRESSION EFFECTUANT UN MOUVEMENT DE VA-ET-VIENT ET SOUPAPE DESTINEE A DES SYSTEMES DE FREINS DE VEHICULE

Publication

EP 1667880 A1 20060614 (EN)

Application

EP 04794085 A 20041001

Priority

- US 2004032607 W 20041001
- US 67867603 A 20031003
- US 90149404 A 20040728

Abstract (en)

[origin: WO2005032897A1] A pump assembly with a combination reciprocating high-pressure seal (63, 163, 257, 357) and fluid inlet check valve(70, 270, 370) comprises a housing(61, 260, 360) having a bore (62, 261, 361) formed therethrough and a piston (50, 250, 350) disposed within the bore for reciprocal movement therein. An annular seal is disposed around the piston for reciprocal movement thereon. At least one passageway(57, 180, 258) is formed in the piston and/or by a cooperation of the piston with the annular seal, and an inlet flange portion (53, 153, 253, 353) of the piston has at least one passageway (59, 159, 263, 363) formed therein. The passageway, the piston, and the annular seal and cooperate to form a check valve assembly (70, 270, 370). The annular seal is moveable to a first position relative to the piston in which the check valve assembly is in a flow-through position to fill the pump chamber (77, 177, 277, 377) during a fluid inlet stroke. The annular seal is moveable to a second position relative to the piston in which the check valve assembly is closed. Further a non-metallic annular seal for a pump is claimed with featureless end faces and a groove formed in the inner wall.

IPC 1-7

B60T 8/40; F04B 53/12; F04B 1/04; F16J 15/16

IPC 8 full level

B60T 8/40 (2006.01); F04B 1/04 (2006.01); F04B 53/12 (2006.01); F16J 15/16 (2006.01); F16J 15/56 (2006.01)

CPC (source: EP)

B60T 8/4031 (2013.01); F04B 1/0408 (2013.01); F04B 1/0452 (2013.01); F04B 53/128 (2013.01); F16J 15/164 (2013.01); F16J 15/56 (2013.01)

Citation (search report)

See references of WO 2005032897A1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

WO 2005032897 A1 20050414; EP 1667880 A1 20060614

DOCDB simple family (application)

US 2004032607 W 20041001; EP 04794085 A 20041001