

Title (en)

Swash plate axial piston pump with pulsation damping means

Title (de)

Schrägscheiben-Axialkolbenpumpe mit Einrichtung zur Pulsationsminderung

Title (fr)

Pompe à pistons axiaux à plateau en biais avec dispositif d'amortissement de pulsation

Publication

**EP 1013928 A3 20001108 (DE)**

Application

**EP 99124966 A 19991215**

Priority

DE 19859328 A 19981222

Abstract (en)

[origin: EP1013928A2] At least two passages(24) with associated outlet holes(27) are formed in a connecting plate(17) and also in the web(26) in the cam plate dividing the LP kidney slot from the HP kidney slot and connect a reversing capacity(23) to the piston bores(11) passing through the web. The outlet holes of the passages corresponding to the piston bores are located on the reference circle formed by the LP(19) and the HP(18) kidney slots. The outlet holes and the passages may have the same or different diameters.

IPC 1-7

**F04B 1/20**; **F04B 11/00**

IPC 8 full level

**F04B 1/20** (2006.01)

CPC (source: EP US)

**F04B 1/2042** (2013.01 - EP US)

Citation (search report)

- [X] DE 19706114 A1 19980820 - LINDE AG [DE]
- [X] DE 2601970 A1 19770721 - LINDE AG
- [A] US 5593285 A 19970114 - WATTS THOMAS A [US]
- [A] US 4048903 A 19770920 - ROBERTS THOMAS ERNEST EDWIN
- [A] DE 2522718 A1 19761202 - LINDE AG
- [A] DE 2613478 A1 19771013 - BRUENINGHAUS HYDRAULIK GMBH
- [A] WO 9530833 A1 19951116 - CATERPILLAR INC [US]
- [A] PATENT ABSTRACTS OF JAPAN vol. 1995, no. 10 30 November 1995 (1995-11-30)

Cited by

WO2015086260A1; WO2015197400A1; DE102013008676A1; DE10135800A1; DE10135800B4; AU2018204390B2; DE10034857A1; EP1174617A3; DE10232513B4; WO2014111360A1; DE102014223790A1; DE102015211315A1; DE102013202296A1; DE102014211858A1; WO2015193131A1; DE102014216373A1; DE102013200729A1; DE102013205449A1; DE102013212147A1; DE102014206376A1; DE102012222962A1; DE102013218124A1; DE102014221780A1; DE102015223218A1; DE102013210404A1; DE102013220231A1; DE102014225935A1; DE102015201834A1; WO2016124288A1; DE102012215240A1; WO2014032849A1; DE102013209463A1; DE102013211882A1; WO2014206681A1; DE102012220743A1; DE102012222717A1; DE102014225917A1; DE102015206716A1; DE102015206718A1; DE102015223215A1; DE102013200753A1; DE102013203221A1; DE102013210440A1; DE102013215680A1; DE102014221766A1; DE102015206714A1; DE102013203787A1; DE102013210387A1; DE102013215634A1; DE102014211870A1; DE102014216387A1; DE102015218939A1; DE102013202295A1; DE102013209478A1; DE102014206243A1; DE102014206380A1; DE102014212335A1; DE1020152220879A1; DE102015226403A1; DE102012215238A1; WO2014032848A1; DE102013209483A1; DE102014211863A1; DE102014212180A1; WO2015197403A1; DE102015211720A1; DE102013209476A1; DE102013221907A1; DE102013225569A1; DE102014211868A1; WO2015193132A1; DE102015217726A1; DE102015220873A1; DE102013210400A1; DE102013215672A1; DE102013224821A1; DE102014216212A1; DE102014221778A1; DE102015206721A1; DE102015211311A1; DE102015217732A1; DE102013200705A1; DE102013200725A1; DE102014206911A1; DE102014212208A1; DE102015223849A1; US9664184B2; US9849482B2; US10527029B2; DE102013200718A1; DE102013209724A1; WO2014187676A1; DE102013215635A1; WO2015018584A1; DE102014211890A1; DE102015208925A1; DE102015219726A1; WO2017063798A1; DE102013209492A1; DE102013212148A1; DE102013215597A1; DE102013225568A1; WO2015086266A1; DE102014204898A1; DE102014206378A1; DE102015206724A1; DE102015218932A1; DE102015222086A1; US6736048B2; DE102012222950A1; DE102013200715A1; DE102013200736A1; DE102014212183A1; DE102014212214A1; DE102014219365A1; DE102015201841A1; DE102015217729A1; DE102015219730A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**EP 1013928 A2 20000628**; **EP 1013928 A3 20001108**; US 6361285 B1 20020326

DOCDB simple family (application)

**EP 99124966 A 19991215**; US 46880699 A 19991221