

Title (en)
TWO-CYLINDER PISTON PUMP

Title (de)
ZWEIZYLINDER-KOLBENPUMPE

Title (fr)
POMPE À PISTON À DEUX CYLINDRES

Publication
EP 3265680 B1 20191009 (DE)

Application
EP 16711787 A 20160307

Priority
• DE 102015103180 A 20150305
• EP 2016054779 W 20160307

Abstract (en)
[origin: WO2016139367A1] The invention relates to a hydraulically driven two-cylinder piston pump (1), comprising a first differential cylinder (22), which has a piston-side chamber (51) and a rod-side chamber (53) and drives a first conveying piston (4) by means of a first piston rod (6), a second differential cylinder (23), which has a piston-side chamber (52) and a rod-side chamber (54) and which drives a second conveying piston (5) by means of a second piston rod (7), and a switch-over device (14), which sets a piston- or rod-side operating mode of the two-cylinder piston pump (1) by switching over the flow of hydraulic fluid to the chambers (51, 52, 53, 54) of the differential cylinders (22, 23), wherein the switch-over device (14) is arranged on the bottoms (48, 49) of the piston-side chambers (51, 52) of the differential cylinders (22, 23) as a bridge-forming connection between the differential cylinders (22, 23). The invention is characterized in that the switch-over device (14) comprises passage channels (28, 29) for the hydraulic fluid for driving the differential cylinders (22, 23), by means of which passage channels the piston-side chambers (51, 52) of the differential cylinders (22, 23) are connected to the switch-over device (14) without hydraulic-fluid lines. The invention further relates to a method for operating a hydraulically driven two-cylinder piston pump according to the invention.

IPC 8 full level
F04B 1/02 (2006.01); **F04B 7/02** (2006.01); **F04B 15/02** (2006.01); **F04B 23/06** (2006.01)

CPC (source: EP US)
F04B 1/02 (2013.01 - US); **F04B 7/02** (2013.01 - EP US); **F04B 15/02** (2013.01 - EP US); **F04B 23/06** (2013.01 - EP US)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
DE 102015103180 A1 20160908; EP 3265680 A1 20180110; EP 3265680 B1 20191009; US 2018045186 A1 20180215;
WO 2016139367 A1 20160909

DOCDB simple family (application)
DE 102015103180 A 20150305; EP 16711787 A 20160307; EP 2016054779 W 20160307; US 20161555797 A 20160307