

Title (en)

A HYDRAULIC VALVE ARRANGEMENT FOR CONTROLLABLY OPERATING A GAS EXCHANGE VALVE OF AN INTERNAL COMBUSTION PISTON ENGINE

Title (de)

HYDRAULISCHE VENTILANORDNUNG ZUR STEUERBAREN BETÄIGUNG EINES GASWECHSELVENTILS EINES HUBKOLBEN-VERBRENNUNGSMOTORS

Title (fr)

AGENCEMENT DE SOUPAPE HYDRAULIQUE POUR FAIRE FONCTIONNER DE MANIÈRE COMMANDÉE UNE SOUPAPE D'ÉCHANGE GAZEUX D'UN MOTEUR À COMBUSTION INTERNE À PISTON

Publication

EP 3045689 A2 20160720 (EN)

Application

EP 15200820 A 20130211

Priority

- FI 20125181 A 20120216
- EP 13712817 A 20130211

Abstract (en)

Invention relates to a hydraulic valve arrangement (10) for controllably operating a gas exchange valve of an internal combustion piston engine, the arrangement comprising a body part (12) in which body part a first fluid chamber (14.1) is arranged bordered by radial surfaces (16.1', 16.2') of first and second piston parts and having a volume that increases in response to the piston parts (16.1, 16.2) moving relative to the body part in a first direction, and a second fluid chamber (14.2) is arranged bordered by radial surface (16.2") of the second piston part having a volume that decreases in response to the second piston part moving relative to the body part in a first direction. The first and the second piston parts are arranged slidably in respect to each other and that the movement of the second piston (16.2) part relative to the body part (12) is arranged controllable by a fluid control system (24) arranged in connection with the hydraulic valve arrangement (10).

IPC 8 full level

F01L 9/10 (2021.01)

CPC (source: EP FI)

F01L 9/10 (2021.01 - EP FI)

Citation (applicant)

- EP 1403473 B1 20080102 - CATERPILLAR INC [US]
- US 2004055547 A1 20040325 - DIEHL UDO [DE], et al

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)

WO 2013121100 A1 20130822; CN 104169532 A 20141126; CN 104169532 B 20160622; EP 2815088 A1 20141224; EP 2815088 B1 20160210; EP 3045689 A2 20160720; EP 3045689 A3 20161116; FI 124245 B 20140515; FI 20125181 A 20130817; KR 101946098 B1 20190208; KR 20140125431 A 20141028

DOCDB simple family (application)

FI 2013050146 W 20130211; CN 201380009436 A 20130211; EP 13712817 A 20130211; EP 15200820 A 20130211; FI 20125181 A 20120216; KR 20147025565 A 20130211