

Title (en)

DEVICE FOR VARIABLE ADJUSTMENT OF THE TIMING OF GAS EXCHANGE VALVES OF AN INTERNAL COMBUSTION ENGINE

Title (de)

VORRICHTUNG ZUR VARIABLEN EINSTELLUNG DER STEUERZEITEN VON GASWECHSELVENTILEN EINER BRENNKRAFTMASCHINE

Title (fr)

DISPOSITIF DE RÉGLAGE VARIABLE DES TEMPS DE COMMANDE DE SOUPAPES D'ÉCHANGE DES GAZ D'UN MOTEUR À COMBUSTION INTERNE

Publication

EP 2321501 A1 20110518 (DE)

Application

EP 09781129 A 20090727

Priority

- EP 2009059668 W 20090727
- DE 102008036182 A 20080802

Abstract (en)

[origin: US2011132303A1] A device for the variable adjustment of the timing of gas exchange valves of an internal combustion engine, which has a hydraulic phase shifting device, a camshaft and a pressurizing distributor. The phase shift device can come into drive linkage with a crankshaft and is rigidly connected to the camshaft. A phase position of the camshaft relative to the crankshaft can be variably adjusted by the phase shift device. The interior of the camshaft has a cavity that communicates with one or more camshaft bearings which are separate from a rotating pressurizing means conveyor. The pressurizing distributor is disposed in a receiving area of the camshaft. The camshaft has an opening in the area of the pressurizing means distributor which with the interior of the camshaft and the rotating pressurizing conveyor. A pressurizing path is designed inside the camshaft which communicates with the opening and the hydraulic phase shift device.

IPC 8 full level

F01L 1/344 (2006.01)

CPC (source: EP US)

F01L 1/3442 (2013.01 - EP US); **F01L 2001/0475** (2013.01 - EP US); **F01L 2001/34426** (2013.01 - EP US); **F01L 2001/34433** (2013.01 - EP US)

Citation (search report)

See references of WO 2010015541A1

Designated contracting state (EPC)

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 SE SI SK SM TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

US 2011132303 A1 20110609; AT E542984 T1 20120215; CN 102112707 A 20110629; CN 102112707 B 20130918; DE 102008036182 A1 20100204; EP 2321501 A1 20110518; EP 2321501 B1 20120125; WO 2010015541 A1 20100211

DOCDB simple family (application)

US 200913057070 A 20090727; AT 09781129 T 20090727; CN 200980130741 A 20090727; DE 102008036182 A 20080802; EP 09781129 A 20090727; EP 2009059668 W 20090727