

Title (en)
DEVICE FOR THE VARIABLE ACTUATION OF GAS EXCHANGE VALVES OF INTERNAL COMBUSTION ENGINES AND METHOD FOR OPERATING SAID DEVICE

Title (de)
VORRICHTUNG ZUR VARIABLEN BET TIGUNG DER GASWECHSELVENTILE V ON VERBRENNUNGSMOTOREN UND VERFAHREN ZUM BETREIBEN EINER DERARTIGEN VORRICHTUNG

Title (fr)
DISPOSITIF D'ACTIONNEMENT VARIABLE DES SOUPAPES D'ECHANGE DES GAZ DE MOTEURS A COMBUSTION INTERNE ET PROCEDE PERMETTANT DE FAIRE FONCTIONNER UN DISPOSITIF DE CE TYPE

Publication
EP 1608852 B1 20110831 (DE)

Application
EP 04721188 A 20040317

Priority
• EP 2004002740 W 20040317
• DE 10312958 A 20030324

Abstract (en)
[origin: US2007000461A1] The invention is characterized in that the gas exchange valves of a cylinder are displaced in a displacement unit (15, 34) jointly and independently of the displacement of the displacement devices of the other cylinders. Every displacement unit (15, 34) is associated with separate actuators for actuating the same. Angle of rotation sensors (42, 43) are provided to detect the angle or rotation signals of the crankshaft and the camshaft or any other shaft rotating at half the crankshaft speed. These angle of rotation signals are used to derive the common idle phase of all valves of a cylinder to be jointly adjusted, a control unit (44) effecting the displacement of every displacement unit (15, 34) during said common idle phase.

IPC 8 full level
F01L 13/00 (2006.01); **F01L 1/08** (2006.01)

CPC (source: EP KR US)
F01L 13/00 (2013.01 - KR); **F01L 13/0063** (2013.01 - EP US); **F01L 1/185** (2013.01 - EP US); **F01L 2013/0068** (2013.01 - EP US); **F01L 2303/01** (2020.05 - EP US); **F01L 2305/00** (2020.05 - EP US); **F01L 2800/06** (2013.01 - EP US); **F01L 2800/08** (2013.01 - EP US); **F01L 2800/13** (2013.01 - EP US)

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
US 2007000461 A1 20070104; US 7302922 B2 20071204; AT E522704 T1 20110915; CN 100404802 C 20080723; CN 1764771 A 20060426; DE 10312958 A1 20041021; DE 10312958 B4 20050310; EP 1608852 A1 20051228; EP 1608852 B1 20110831; JP 2006521491 A 20060921; KR 101059407 B1 20110829; KR 20050109599 A 20051121; WO 2004085802 A1 20041007

DOCDB simple family (application)
US 55153905 A 20050914; AT 04721188 T 20040317; CN 200480007859 A 20040317; DE 10312958 A 20030324; EP 04721188 A 20040317; EP 2004002740 W 20040317; JP 2006504706 A 20040317; KR 20057017708 A 20040317