

Title (en)  
VARIABLE VALVE DEVICE OF AN INTERNAL COMBUSTION ENGINE

Title (de)  
VARIABLE VENTILVORRICHTUNG FÜR EINEN VERBRENNUNGSMOTOR

Title (fr)  
DISPOSITIF À SOUPAPES VARIABLES D'UN MOTEUR À COMBUSTION INTERNE

Publication  
**EP 2505795 A4 20130424 (EN)**

Application  
**EP 10833172 A 20101122**

Priority  
• JP 2009267506 A 20091125  
• JP 2010070799 W 20101122

Abstract (en)  
[origin: US2012145101A1] A variable valve device has a configuration in which a first cam (20) and a second cam (22a) that is a counterpart of the first cam are disposed in the outside of a shaft member (17) so that the second cam (22a) is displaceable in the circumferential direction, and is formed so that a cam face (22c) of the second cam has a cam width dimension a that is larger than a cam width b of a cam face of the first cam.

IPC 8 full level  
**F01L 1/04** (2006.01); **F01L 1/053** (2006.01); **F01L 1/14** (2006.01); **F01L 1/34** (2006.01); **F01L 1/344** (2006.01)

CPC (source: EP KR US)  
**F01L 1/04** (2013.01 - KR); **F01L 1/053** (2013.01 - EP US); **F01L 1/143** (2013.01 - EP US); **F01L 1/34** (2013.01 - KR); **F01L 1/34413** (2013.01 - EP US); **F01L 1/3442** (2013.01 - EP US); **F01L 2001/0473** (2013.01 - EP US); **F01L 2001/0537** (2013.01 - EP US); **F01L 2001/34483** (2013.01 - EP US)

Citation (search report)  
• [AD] JP 2009144522 A 20090702 - HONDA MOTOR CO LTD  
• [A] JP 2000213315 A 20000802 - UNISIA JECS CORP, et al  
• [A] JP 2005140010 A 20050602 - MITSUBISHI MOTORS CORP  
• [A] US 3882832 A 19750513 - OHSAKI KIYOSHI, et al  
• See references of WO 2011065326A1

Cited by  
EP2511488A4; US8939117B2

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)  
**US 2012145101 A1 20120614**; BR 112012004601 A2 20160405; CN 103038458 A 20130410; EP 2505795 A1 20121003; EP 2505795 A4 20130424; EP 2505795 B1 20140611; IN 1666DEN2012 A 20150605; JP 2011111936 A 20110609; JP 4883330 B2 20120222; KR 101169900 B1 20120731; KR 20120039741 A 20120425; RU 2493376 C1 20130920; WO 2011065326 A1 20110603

DOCDB simple family (application)  
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