

Title (en)
INTERNAL COMBUSTION ENGINE VALVE TRAIN ADJUSTMENT DEVICE

Title (de)
BRENNKRAFTMASCHINENVENTILTRIEBVERSTELLVORRICHTUNG

Title (fr)
DISPOSITIF DE DÉPHASAGE DE DISTRIBUTION DE MOTEUR À COMBUSTION INTERNE

Publication
EP 2823160 A1 20150114 (DE)

Application
EP 13703527 A 20130129

Priority
• DE 102012004420 A 20120308
• EP 2013000265 W 20130129

Abstract (en)
[origin: WO2013131602A1] The invention relates to a motor vehicle valve train adjustment device comprising at least one camshaft (10a; 10b) which comprises at least four axially displaceable cam elements (11, 12a, 13a, 14a; 11b, 12b, 13b, 14b, 15b, 16b). Each set of two cam elements (11a, 12a, 13a, 14a; 11b, 12b, 13b, 14b, 15b, 16b) that are adjacent to each other is designed as a cam element group to be jointly actuated (17a, 18a; 17b, 18b, 19b).

IPC 8 full level
F01L 1/344 (2006.01); **F01L 13/00** (2006.01); **F02B 75/20** (2006.01); **F02B 75/22** (2006.01)

CPC (source: EP US)
F01L 1/34413 (2013.01 - EP US); **F01L 13/0036** (2013.01 - EP US); **F02B 75/20** (2013.01 - EP US); **F02B 75/22** (2013.01 - EP US);
F01L 2013/0052 (2013.01 - EP US)

Citation (search report)
See references of WO 2013131602A1

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

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
DE 102012004420 A1 20130912; CN 104160122 A 20141119; CN 104160122 B 20190205; EP 2823160 A1 20150114;
EP 2823160 B1 20160921; JP 2015510080 A 20150402; JP 6254539 B2 20171227; US 2015047588 A1 20150219; US 9631523 B2 20170425;
WO 2013131602 A1 20130912

DOCDB simple family (application)
DE 102012004420 A 20120308; CN 201380012690 A 20130129; EP 13703527 A 20130129; EP 2013000265 W 20130129;
JP 2014560263 A 20130129; US 201314383225 A 20130129