

Title (en)

CAMSHAFT FOR THE VALVE DRIVE OF AN INTERNAL COMBUSTION ENGINE WITH A VARIABLE VALVE OPENING DURATION

Title (de)

NOCKENWELLE FÜR DEN VENTILTRIEB EINER BRENNKRAFTMASCHINE MIT VARIIERBARER VENTILÖFFNUNGSDAUER

Title (fr)

ARBRE À CAMES POUR COMMANDE DE SOUPAPE D'UN MOTEUR À COMBUSTION INTERNE À DURÉE D'OUVERTURE DE SOUPAPES VARIABLE

Publication

EP 3161281 A1 20170503 (DE)

Application

EP 15729484 A 20150617

Priority

- DE 102014109103 A 20140630
- EP 2015063601 W 20150617

Abstract (en)

[origin: WO2016000965A1] The invention relates to a camshaft (1) for the valve drive of an internal combustion engine with a variable valve opening duration, comprising an outer shaft (2) and an inner shaft (3) which extends through the outer shaft (2). The inner shaft (3) is held in a rotatable manner relative to the outer shaft (2). A cam (6) is designed in multiple parts and has a first sub-cam (4) and at least one second sub-cam (5). Either the first sub-cam (4) or the at least one second sub-cam (5) is rotationally fixed to the outer shaft (2), and the respective other sub-cam (5, 4) is rotationally fixed to the inner shaft (3). An inner bearing ring (7) of a shaft bearing (9) is held on the outer shaft (2), and one of the second sub-cams (5) has an axial projection which forms at least one part of the inner bearing ring (7).

IPC 8 full level

F01L 13/00 (2006.01); **F01L 1/053** (2006.01)

CPC (source: CN EP KR US)

F01L 1/047 (2013.01 - US); **F01L 1/053** (2013.01 - CN EP KR US); **F01L 1/08** (2013.01 - US); **F01L 1/34413** (2013.01 - US); **F01L 13/0057** (2013.01 - CN EP KR US); **F01L 2001/0473** (2013.01 - CN EP KR US); **F01L 2001/0476** (2013.01 - CN EP KR US)

Citation (search report)

See references of WO 2016000965A1

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 102014109103 A1 20151231; CN 106661967 A 20170510; CN 106661967 B 20191220; EP 3161281 A1 20170503; EP 3161281 B1 20180815; JP 2017519940 A 20170720; KR 20170021262 A 20170227; US 10316705 B2 20190611; US 2017122142 A1 20170504; WO 2016000965 A1 20160107

DOCDB simple family (application)

DE 102014109103 A 20140630; CN 201580035680 A 20150617; EP 15729484 A 20150617; EP 2015063601 W 20150617; JP 2017519801 A 20150617; KR 20167036664 A 20150617; US 201515318950 A 20150617