

Title (en)

VARIABLE VALVE DRIVE FOR INTERNAL COMBUSTION ENGINE

Title (de)

VARIABLE VENTILSTEUERUNGSEINRICHTUNG FÜR BRENNKRAFTMASCHINEN

Title (fr)

DISPOSITIF DE COMMANDE DE SOUPAPE VARIABLE POUR MOTEUR A COMBUSTION INTERNE

Publication

EP 3350421 B1 20190417 (DE)

Application

EP 16770876 A 20160919

Priority

- AT 508012015 A 20150918
- AT 2016060066 W 20160919

Abstract (en)

[origin: WO2017045009A1] The invention relates to a variable valve control device (1) for internal combustion engines of the reciprocating-piston design having at least one gas exchange valve, which can be actuated by a camshaft (3) by means of a cam device (4) that is connected to the camshaft (3) for conjoint rotation and that has at least two different cam tracks (7, 8), which camshaft is supported in such a way that the camshaft can be rotated about a camshaft axis (2), wherein, selectively, one of the cam tracks (7, 8) can be activated and at least one other cam track (8, 7) can be deactivated by means of a control device (10), and wherein the control device (10) has at least one control element (11), which is guided axially, in particular within the camshaft, and by which at least one cam device (4) that is supported on the camshaft (3) for conjoint rotation but axially movably and that has at least two different cam tracks (7, 8) can be adjusted by means of at least one driving piece (12). In order to enable reliable and fail-safe variable valve actuation in the simplest possible manner, at least one blocking element (20) is provided for blocking and releasing the axial adjustment motion of the cam device (4), wherein the blocking element (20) has a control stud (21) fixedly connected to the cam device (4) and a - preferably stationary - control disk (22) arranged coaxial to the camshaft (3), wherein the control disk (22) has, in at least one angular region, at least one control opening (25) for receiving the control stud (21).

IPC 8 full level

F01L 1/047 (2006.01); **F01L 13/00** (2006.01)

CPC (source: AT EP US)

F01L 1/047 (2013.01 - AT EP US); **F01L 13/0036** (2013.01 - AT EP US); **F01L 2001/0473** (2013.01 - EP US); **F01L 2013/0052** (2013.01 - EP US)

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)

WO 2017045009 A1 20170323; AT 517816 A1 20170415; AT 517816 B1 20191015; CN 108350764 A 20180731; CN 108350764 B 20200310; EP 3350421 A1 20180725; EP 3350421 B1 20190417; US 10400637 B2 20190903; US 2019048760 A1 20190214

DOCDB simple family (application)

AT 2016060066 W 20160919; AT 508012015 A 20150918; CN 201680065515 A 20160919; EP 16770876 A 20160919; US 201615760103 A 20160919