Title (en)

VARIABLE VALVE DRIVE FOR INTERNAL COMBUSTION ENGINE

Title (de)

VARIABLE VENTILSTEUERUNGSEINRICHTUNG FÜR BRENNKRAFTMASCHINEN

Title (fr)

DISPOSITIF DE COMMANDE VARIABLE DE SOUPAPE DE MOTEUR À COMBUSTION INTERNE

Publication

EP 3350423 B1 20190313 (DE)

Application

EP 16770875 A 20160919

Priority

- AT 508022015 A 20150918
- AT 2016060065 W 20160919

Abstract (en)

[origin: WO2017045008A1] 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 (32), 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 lever (12), which can be pivoted about a pivot axis (11), and has at least one first control body (13), which is connected to the camshaft (3) for conjoint rotation and in the surface of which at least one first control groove (17) and at least one second control groove (18) are formed, wherein, selectively, a first control stud (19) of the control lever (12) can be directed into the first control groove (17) or a second control stud (20) of the control lever (12) can be directed into the second control groove (18). In order to enable a compact variable valve control system having little production and construction complexity, the control body (13) has an inner first lateral surface (14) and an outer second lateral surface (15), wherein the first lateral surface (14) has a smaller distance from the camshaft axis (2) than the second lateral surface (15) has and the two lateral surfaces (14, 15) are arranged concentric to the camshaft axis (2), and wherein the two lateral surfaces (14, 15) facing each other bound a substantially annular control space (16), and the first control groove (17) is formed in the first lateral surface (14) and the second control groove (18) is formed in the second lateral surface (15).

IPC 8 full level

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

CPC (source: AT EP US)

F01L 1/047 (2013.01 - AT EP US); **F01L 13/0015** (2013.01 - AT); **F01L 13/0036** (2013.01 - AT EP US); F01L 2001/0473 (2013.01 - 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 2017045008 A1 20170323; AT 517815 A1 20170415; AT 517815 B1 20191015; CN 108291460 A 20180717; CN 108291460 B 20200605; EP 3350423 A1 20180725; EP 3350423 B1 20190313; US 10385738 B2 20190820; US 2018266280 A1 20180920

DOCDB simple family (application)

AT 2016060065 W 20160919; AT 508022015 A 20150918; CN 201680067063 A 20160919; EP 16770875 A 20160919; US 201615760091 A 20160919