

Title (en)

METHOD FOR OPERATING A VALVE TRAIN OF AN INTERNAL COMBUSTION ENGINE AND CORRESPONDING VALVE TRAIN

Title (de)

VERFAHREN ZUM BETREIBEN EINES VENTILTRIEBS EINER BRENNKRAFTMASCHINE SOWIE ENTSPRECHENDER VENTILTRIEB

Title (fr)

PROCÉDÉ PERMETTANT DE FAIRE FONCTIONNER UN MÉCANISME DE DISTRIBUTION D'UN MOTEUR À COMBUSTION INTERNE ET MÉCANISME DE DISTRIBUTION CORRESPONDANT

Publication

EP 2855864 B1 20160727 (DE)

Application

EP 13731289 A 20130605

Priority

- DE 102012011116 A 20120605
- EP 2013001642 W 20130605

Abstract (en)

[origin: WO2013182300A1] The invention relates to a method for operating a valve train (1) of an internal combustion engine, which valve train comprises at least one main camshaft, on which main camshaft at least one cam carrier is provided in a rotationally fixed manner and such that it can be axially displaced between at least two axial positions, wherein an actuator (5) for axial displacement out of the axial positions into a selected desired position is associated with the cam carrier, wherein at least one shift gate (2) is associated with the cam carrier and co-operates with the actuator (5) to displace the cam carrier, wherein the actuator (5) comprises a driver (6) which is extended in order to displace the cam carrier in the direction of at least one sliding slot (3, 4) of the shift gate (2), wherein the sliding slot (3, 4) has an ejection ramp in an ejection region which ejects the driver (6) out of the sliding slot (3, 4) until the displacement is concluded, and wherein a voltage (U) induced in the actuator (5) by the ejection process is detected. The induced voltage (U) is integrated in a specific rotational angle range (23, 24) associated with the ejection region and when the integrated voltage exceeds a threshold level a confirmation signal is generated. The invention further relates to a valve train (1) of an internal combustion engine.

IPC 8 full level

F01L 1/344 (2006.01); **F01L 13/00** (2006.01)

CPC (source: CN EP US)

F01L 1/34413 (2013.01 - CN EP US); **F01L 13/0036** (2013.01 - CN EP US); **F02D 41/20** (2013.01 - EP US); **F01L 2013/0052** (2013.01 - CN EP US); **F02D 2041/001** (2013.01 - EP US); **F02D 2041/2051** (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)

DE 102012011116 A1 20131205; CN 104364478 A 20150218; CN 104364478 B 20170405; EP 2855864 A1 20150408; EP 2855864 B1 20160727; ES 2587653 T3 20161026; US 2015136052 A1 20150521; US 9611765 B2 20170404; WO 2013182300 A1 20131212

DOCDB simple family (application)

DE 102012011116 A 20120605; CN 201380029990 A 20130605; EP 13731289 A 20130605; EP 2013001642 W 20130605; ES 13731289 T 20130605; US 201314405716 A 20130605