

Title (en)

VALVE TRAIN FOR INTERNAL COMBUSTION ENGINES FOR ACTUATING GAS EXCHANGE VALVES

Title (de)

VENTILTRIEB FÜR BRENNKRAFTMASCHINEN ZUR BETÄTIGUNG VON GASWECHSELVENTILEN

Title (fr)

COMMANDE POUR ACTIONNER DES SOUPAPES DE CHANGEMENT DES GAZ SUR DES MOTEURS À COMBUSTION INTERNE

Publication

EP 2464834 B1 20130724 (DE)

Application

EP 10760230 A 20100803

Priority

- DE 102009037270 A 20090810
- DE 2010000931 W 20100803

Abstract (en)

[origin: WO2011018074A2] The invention relates to a valve train for internal combustion engines for actuating gas exchange valves which can be operated set to different opening lifts. The aim of the invention is to provide a valve train for actuating gas exchange valves of internal combustion engines, characterised by having a simple structure whilst at the same time reducing exerted frictional forces. The claimed valve train for actuating the gas exchange valves comprises a tubular-shaped camshaft which can be driven by a crankshaft of the internal combustion engine. One or more rotationally fixed but axially displaceable cam supports are arranged on the camshaft pipe, which respectively have the same base-circle section with several different cam profiles. The cam profiles can be operatively connected to the gas exchange valves by displacing the cam support. The cam support is displaced on a camshaft pipe for controlling the valve by means of a selector shaft arranged inside the camshaft pipe and rotating with said camshaft pipe which is operatively connected to a cam support which can be axially displaced on the camshaft pipe by means of a driver which slides in a selector contour on the selector shaft. Said selector shaft is connected to a rotationally fixed but axially displaceable displacement part on the cam sleeve by means of a transmission, said displacement part being operatively connected to the actuator for producing a relative rotation of the camshaft in relation to the camshaft pipe in order to actuate the selector shaft.

IPC 8 full level

F01L 13/00 (2006.01)

CPC (source: EP US)

F01L 13/0036 (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 SE SI SK SM TR

DOCDB simple family (publication)

WO 2011018074 A2 20110217; WO 2011018074 A3 20110428; DE 102009037270 A1 20110303; DE 102009037270 B4 20110407; EP 2464834 A2 20120620; EP 2464834 B1 20130724; JP 2013501873 A 20130117; JP 5649238 B2 20150107; US 2012125274 A1 20120524; US 8746194 B2 20140610

DOCDB simple family (application)

DE 2010000931 W 20100803; DE 102009037270 A 20090810; EP 10760230 A 20100803; JP 2012524111 A 20100803; US 201013388062 A 20100803