

Title (en)

VALVE ROTATING DEVICE FOR EXHAUST VALVES OF INTERNAL COMBUSTION ENGINES

Title (de)

VENTILDREHVORRICHTUNG FÜR AUSLASSVENTILE VON VERBRENNUNGSMOTOREN

Title (fr)

DISPOSITIF DE ROTATION DE SOUPAPES POUR DES SOUPAPES D'ÉCHAPPEMENT DE MOTEURS À COMBUSTION INTERNE

Publication

EP 2212525 B1 20110223 (DE)

Application

EP 09730235 A 20090407

Priority

- EP 2009002560 W 20090407
- DE 102008018612 A 20080411

Abstract (en)

[origin: WO2009124718A1] The invention relates to a valve rotating device for exhaust valves of internal combustion engines, in particular marine diesel engines. According to the invention, said device is arranged on a valve housing for the valve spindle (1), in the vicinity of a first drive element for opening the valve and a second drive element for closing the valve. Said device comprises a neutral device that rotates the valve spindle (1) during the closing movement or the opening movement thereof and releases the rotation in the counter direction. In order to transmit the rotational movement, the valve spindle (1) comprises an outer helical toothing (16) on the valve stem (3) and the associated inner helical toothing (14) on an inner ring (13) is supported by means of the neutral device. The outer helical toothing (16) corresponds, in the axial direction, at least to the length of the opening lift of the valve spindle (1) and the minimum engagement length of the helical toothing. The inner ring (13) is mounted on the axial ball-bearing (62) in a recess of a housing cover (4) of the valve housing (2) and comprises, on the outer periphery thereof, a ratchet toothing that interacts with the ratchet elements of the neutral device.

IPC 8 full level

F01L 1/32 (2006.01)

CPC (source: EP)

F01L 1/32 (2013.01)

Designated contracting state (EPC)

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 TR

DOCDB simple family (publication)

WO 2009124718 A1 20091015; AT E499510 T1 20110315; DE 102008018612 A1 20091029; DE 502009000398 D1 20110407; DK 2212525 T3 20110620; EP 2212525 A1 20100804; EP 2212525 B1 20110223

DOCDB simple family (application)

EP 2009002560 W 20090407; AT 09730235 T 20090407; DE 102008018612 A 20080411; DE 502009000398 T 20090407; DK 09730235 T 20090407; EP 09730235 A 20090407