

Title (en)

INTERNAL COMBUSTION ENGINE WITH HYDRAULIC VARIABLE VALVE DRIVE

Title (de)

BRENNKRAFTMASCHINE MIT HYDRAULISCH VARIABLEM GASWECHSELVENTILTRIEB

Title (fr)

MOTEUR À COMBUSTION INTERNE AVEC SOUPAPES À COMMANDE HYDRAULIQUE VARIABLE

Publication

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Application

EP 17787318 A 20170928

Priority

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- DE 2017100828 W 20170928

Abstract (en)

[origin: WO2018059627A1] An internal combustion engine having a hydraulically variable gas exchange valve train is proposed, which gas exchange valve train comprises the following: - a hydraulic housing (4) with a pressure chamber (5), a pressure relief chamber (6) and a vent duct (11), wherein the pressure chamber, the pressure relief chamber and the vent duct are connected to one another hydraulically, - a master piston (7) which is guided in the hydraulic housing, is driven on the housing outer side by a cam (3) and delimits the pressure chamber on the housing inner side, - a slave piston (8) which is guided in the hydraulic housing, drives the gas exchange valve (2) on the housing outer side and delimits the pressure chamber on the housing inner side, - and a hydraulic valve (9) which, in the closed state, interrupts the connection between the pressure relief chamber and the pressure chamber. The vent duct is connected hydraulically on the housing inner side via a throttle point (12) to the pressure relief chamber, and opens on the housing outer side below the pressure relief chamber with regard to the direction of gravity. The vent duct is to open into a hydraulic reservoir (13, 13', 13''), wherein the duct opening (14) lies below the normal level of the hydraulic reservoir with regard to the direction of gravity.

IPC 8 full level

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CPC (source: EP US)

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