

Title (en)

VALVE ARRANGEMENT WITH SLOW ROTATING ROTARY VALVE FOR INTERNAL COMBUSTION ENGINE

Title (de)

VENTILVORRICHTUNG MIT LANGSAM DREHENDEN DREHVENTILEN FÜR VERBRENNUNGSMOTOREN

Title (fr)

COMMANDE DE SOUPAPE POUR VALVE ROTATIVE À ROTATION LENTE DESTINÉE À UN MOTEUR À COMBUSTION INTERNE

Publication

EP 3300510 A1 20180404 (DE)

Application

EP 16750088 A 20160420

Priority

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- DE 2016000163 W 20160420

Abstract (en)

[origin: WO2016173575A1] Technical problem addressed by the invention: A valve system for internal combustion engines that is controlled by a camshaft is a potential source of engine damage if the timing thereof is disrupted (e.g. when the timing belts rupture). Furthermore, valves in combination with the camshaft and the timing chain contribute to noise and vibrations during operation. The production costs for said conventional valve design and the control mechanism thereof are high. As a result of the design involving a camshaft, the engine is positioned higher and is heavier. Solution to the problem: a valve mechanism composed of a plurality of gas exchange valves that revolve slowly about the cylinder wall. Each rotary valve is controlled separately and has symmetrical openings. The number of openings in the rotary valve corresponds to the number of working cycles per revolution, i.e., the more openings a rotary valve has, the less quickly it has to rotate. Since each rotary valve is driven separately and as a result of the size of the openings in the valve, it is possible to obtain different phase shifts, valve overlaps and opening times. Field of application: four-stroke engine.

IPC 8 full level

F01L 7/04 (2006.01)

CPC (source: CN EP US)

F01L 7/04 (2013.01 - CN EP US); **F01L 7/045** (2013.01 - CN EP US)

Citation (search report)

See references of WO 2016173575A1

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