

Title (en)

HYDRAULIC VALVE PLAY COMPENSATING ELEMENT FOR RECIPROCATING-PISTON INTERNAL COMBUSTION ENGINES

Title (de)

HYDRAULISCHES VENTILSPIEL-AUSGLEICHSELEMENT FÜR HUBKOLBENBRENNKRAFTMASCHINEN

Title (fr)

ÉLÉMENT DE COMPENSATION HYDRAULIQUE DE JEU DE SOUPAPE POUR MOTEURS À COMBUSTION INTERNE À PISTON ALTERNATIF

Publication

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Application

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Abstract (en)

[origin: WO2011134790A2] The invention relates to a reciprocating-piston internal combustion engine which operates on the four-stroke cycle, having a crankcase and having at least one cylinder which is arranged in said crankcase and in which a piston is guided by a crankshaft, having at least one cylinder head which closes off the cylinder and the inlet and outlet ducts of which are controlled by at least in each case one inlet and outlet valve loaded by a valve spring, which inlet and outlet valves can be actuated by transmission elements driven by a camshaft, and having a hydraulic valve play compensating element (5) which is installed in at least one of the transmission elements or in a component, which is installed in the transmission element, between the camshaft and at least one inlet and/or outlet valve, which hydraulic valve play compensating element has a working piston (8), a cylinder housing (7) which interacts with the working piston (8), a restoring spring (18) which is installed in between, and a check valve which delimits a high-pressure chamber (19) and the valve closing body (12) of which corresponds to a valve seat (11) on the working piston (8), wherein the valve closing body (12) has a partial spherical surface (13) in the region of the valve seat (11), and wherein the ratio of the diameter of the working piston (8) to twice the radius of the partial spherical surface (13) is = 2.

IPC 8 full level

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