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INTERNAL COMBUSTION ENGINE

Title (de)  
VERBRENNUNGSMOTOR

Title (fr)  
MOTEUR À COMBUSTION INTERNE

Publication  
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Application  
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Abstract (en)  
[origin: WO2010115636A2] An internal combustion engine (1) is depicted and described, having a crank shaft, having at least one compression piston (5) which is movably accommodated in a compression cylinder (4), and having at least one working piston (7) which is movably accommodated in a working cylinder (6), wherein the movement of the compression piston (5) and the movement of the working piston (7) are coupled kinematically to the movement of the crank shaft, so that the compression piston (5) moves back and forth during a single revolution of the crank shaft by a priming stroke and a compression stroke of a four-stroke cycle and that the working piston (7) moves back and forth during a single revolution of the crank shaft by a working stroke and an exhaust stroke of the same four-stroke cycle, wherein the compression cylinder (4) has at least one inlet valve (8) for sucking air into the compression cylinder (4) upon downwards movement of the compression piston (5), and the working cylinder (6) has at least one outlet valve (9) for emitting combustion gases from the working cylinder (6) upon upwards movement of the working piston (7). According to the invention, two combustion chambers (10 - 13) are provided for igniting and burning a fuel-air mixture, which combustion chambers are separated from each other and which connect the compression cylinder (4) to the working cylinder (6), wherein each combustion chamber (10 - 13) is connected to the compression cylinder (4) by way of at least one combustion chamber inlet valve (14a - d) and is connected to the working cylinder (6) by way of at least one combustion chamber outlet valve (15a - d), and wherein the valves (8, 9, 14a - d, 15a - d) are controlled such that the combustion chamber outlet valve (15a - d) of a combustion chamber (10 - 13) is not opened until the fuel-air mixture has been combusted in said combustion chamber (10 - 13), and that the combustion chambers (10 - 13) can be activated alternately for a combustion.

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