

Title (en)  
TWO-STROKE COMBUSTION ENGINE

Title (de)  
ZWEITAKT-VERBRENNUNGSMOTOR

Title (fr)  
MOTEUR À COMBUSTION INTERNE À DEUX TEMPS

Publication  
**EP 4368822 A1 20240515 (EN)**

Application  
**EP 22206614 A 20221110**

Priority  
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Abstract (en)  
The invention relates to a two-stroke combustion engine comprising:- a first and second toroid sector shaped combustion chamber having a common main axis of revolution and toroidal axis, wherein the first and second combustion chamber are arranged mirror symmetrical relative to a plane through the main axis of revolution, wherein each combustion chamber has on one end an inlet port arranged in the toroidal wall and on the other end an outlet port arranged in the toroidal wall;- two pairs of piston heads coaxially arranged with the toroidal axis of the first and second combustion chamber, wherein the two piston heads of each pair are mounted fixedly on opposite sides of an arc-shaped base element, which base element is mounted fixedly with a center part to one end of a lever, which is rotatable around the main axis;and wherein of the first pair one piston head is positioned in the first end of the first combustion chamber and the other piston head is positioned in the first end of the second combustion chamber and wherein of the second pair one piston head is positioned in the second end of the first combustion chamber and the other piston head is positioned in the second end of the second combustion chamber, such that the piston heads are movable in the respective combustion chamber and along the toroidal direction;- a crankshaft mechanism and two drive rods rotatably connected with one end to the crankshaft mechanism and with the other end to one of the levers for transforming the reciprocating movement of the pair of piston heads into a rotating motion of the crankshaft mechanism; and- at least two spark plugs each extending into one of the first and second combustion chambers.

IPC 8 full level  
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Citation (search report)  
• [X] DE 292633 C 19160620  
• [X] US 2006150949 A1 20060713 - KOVALENKO VYACHESLAV I [UA]  
• [X] US 2012134860 A1 20120531 - DRACHKO YEVGENIY FEDOROVICH [UA]  
• [A] WO 8808921 A1 19881117 - GAMBARO GIANFRANCO [IT]  
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