

Title (en)

FREE PISTON ENGINE HAVING A HYDRAULIC POWER TRANSMISSION MECHANISM

Publication

EP 0183258 A3 19870513 (EN)

Application

EP 85115091 A 19851128

Priority

JP 25141484 A 19841128

Abstract (en)

[origin: EP0183258A2] A free piston engine having a hydraulic power transmission mechanism. The engine includes at least one free piston (11a, 11b, 11c, 11d) adapted to reciprocate linearly, a rotary piston (33a) rotatably mounted on the crank pin of the crankshaft (31) to rotate about the crank pin and a hydraulic power transmission system (34a, 34b, 34c, 34d, 35). One end face of the or each free piston is exposed to pressure of combustion gas or compressed gas, whereas the other end face of the same is exposed to hydraulic pressure. The rotary piston (33a) has the contour of epitrochoidal curve as seen in the cross-sectional plane. Working hydraulic medium is filled in a space (35) of the hydraulic system as defined between the other end face of the free piston and the rotary piston so as to convert linear reciprocable movement of the free piston (11a, 11b, 11c, 11d) to rotational movement of the crankshaft (31).

IPC 1-7

F01B 11/08; **F04F 11/02**

IPC 8 full level

F01B 9/00 (2006.01); **F01B 11/00** (2006.01); **F01B 11/08** (2006.01); **F02B 71/00** (2006.01); **F02B 71/04** (2006.01); **F02B 75/32** (2006.01); **F04F 13/00** (2009.01); **F02B 3/06** (2006.01); **F02B 75/02** (2006.01)

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Citation (search report)

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Cited by

US6029616A; RU2476698C1; AU694858B2; WO9633343A1; WO2014129923A1

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