

Title (en)  
HIGH POWER DENSITY, DIESEL ENGINE

Title (de)  
DIESELMOTOR MIT HOHER SPEZIFISCHER LEISTUNG

Title (fr)  
MOTEUR DIESEL A FORTE PUISSANCE VOLUMIQUE

Publication  
**EP 1064458 A4 20040714 (EN)**

Application  
**EP 99912541 A 19990317**

Priority  
• US 9905632 W 19990317  
• US 7823698 P 19980317

Abstract (en)  
[origin: WO9947804A1] An engine (10) having an engine block (12) with a compression cylinder (22) and an expansion cylinder (24) defined therein. A compression piston (34) is located in the compression cylinder (22) and an expansion piston (36) is located in the expansion cylinder (24). Each piston is connected to a crankschaft (26, 28). A rotary prechamber tube (44), having two, constant volume, combustion chambers (48) defined therein, is positioned within a housing (14) coupled to the engine block (12). Induction and expansion ports respectively forming passageways communicating the compression cylinder (22) and the expansion cylinder (24) with the chambers (48) of the tube (44). The tube (44) itself is rotatably supported in the housing (14) and oriented with its axis (46) being generally transverse to cylinder axes. The engine (10) is operated such that the chambers (48) are successively brought into communication via the induction port with the compression cylinder (22), separated from communication with said compression cylinder (22), brought into a position to receive fuel from said fuel injector (62) and to initiate combustion, and then brought into communication via the expansion port with the expansion cylinder (24) to complete combustion.

IPC 1-7  
**F02G 3/02**; **F02B 75/22**; **F02B 19/02**

IPC 8 full level  
**F02B 15/00** (2006.01); **F01B 17/02** (2006.01); **F02B 19/02** (2006.01); **F02G 3/02** (2006.01); **F02B 3/06** (2006.01)

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Citation (search report)  
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• [A] US 4876992 A 19891031 - SOBOTOWSKI RAFAL A [US]  
• [X] US 1211950 A 19170109 - LOUGH HECTOR VIVIAN [US]  
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• [A] GB 266386 A 19270818 - FERNAND LAGUESSE  
• See references of WO 9947804A1

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