

Title (en)
ROTARY PISTON THERMAL ENGINE DEVICE

Title (de)
KREISKOLBEN-WÄRMEMOTOR-VORRICHTUNG

Title (fr)
DISPOSITIF A MOTEUR THERMIQUE A PISTONS ROTATIFS

Publication
EP 1682749 A1 20060726 (DE)

Application
EP 03775090 A 20031029

Priority
DE 0303601 W 20031029

Abstract (en)
[origin: WO2005045197A1] Disclosed is a rotary piston thermal engine device (100) comprising two units (I, II) that are provided with two reciprocatingly mounted pistons (1, 2), respectively. A plurality of effective swept volumes (8, 9, 11, 12, or 8', 9', 11', 12') are embodied between two respective radial boundary surfaces (10, 20) of the two respective pistons (1, 2) that perform an oscillating movement in relation to each other during operation of the engine (100). At least one mechanism is provided which causes a rotary movement of both pistons (1, 2) to be superimposed on the oscillating movement thereof while a heating unit, a heat accumulating unit, and a cooling unit are provided in connection with a pipe system by means of which inlet slots (130, 130'; 131, 131') and outlet slots (140, 140'; 141, 141') of the swept volumes of the cylinders (3, 3') of the units (I, II) are joined to each other. In order to be able to adjust said rotary piston thermal engine device to a plurality of different operating conditions such as different temperature and pressure conditions in the cylinders, a compensating element is provided which causes the position of the respective pistons of the two units (I, II) to be adjusted in case of a possible phase shift during timing of the two units (I, II) so as to obtain an optimized phase response.

IPC 8 full level
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CPC (source: EP US)
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