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ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: SPLIT-CYCLE ENGINE WITH DWELL PISTON MOTION

(57) Abstract: An engine includes a crankshaft having a crank throw, the crankshaft rotating about a crankshaft axis. A compression piston is slidably received within a compression cylinder and operatively connected to the crankshaft such that the compression piston reciprocates through an intake stroke and a compression stroke of a four stroke cycle during a single rotation of the crankshaft. An expansion piston is slidably received within an expansion cylinder. A connecting rod is pivotally connected to the expansion piston. A mechanical linkage rotationally connects the crank throw to the connecting rod about a connecting rod/crank throw axis such that the expansion piston reciprocates through an expansion stroke and an exhaust stroke of the four stroke cycle during the same rotation of the crankshaft. A path is established by the mechanical linkage which the connecting rod/crank throw axis travels around the crankshaft axis. The distance between the connecting rod/crank throw axis and crankshaft axis at any point in the path defines an effective crank throw radius. The path includes a first transition region from a first effective crank throw radius to a second effective crank throw radius through which the connecting rod/crank throw axis passes during at least a portion of a combustion event in the expansion cylinder.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : F02B 33/22

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 123/70R, 70V, 68, 52.3, 53.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Search West: (Work or Power Combustion) piston and (Compression or Intake) cylinder and Crankshaft and Connecting

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,543,225 B2 (SCUDERI) 08 April 2003(08.04.2003), see entire document.	1-6,11-14
A	US 6,606,970 B2 (PATTON, R.) 19 August 2003(19.08.2003).	7-10 and 15-20

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