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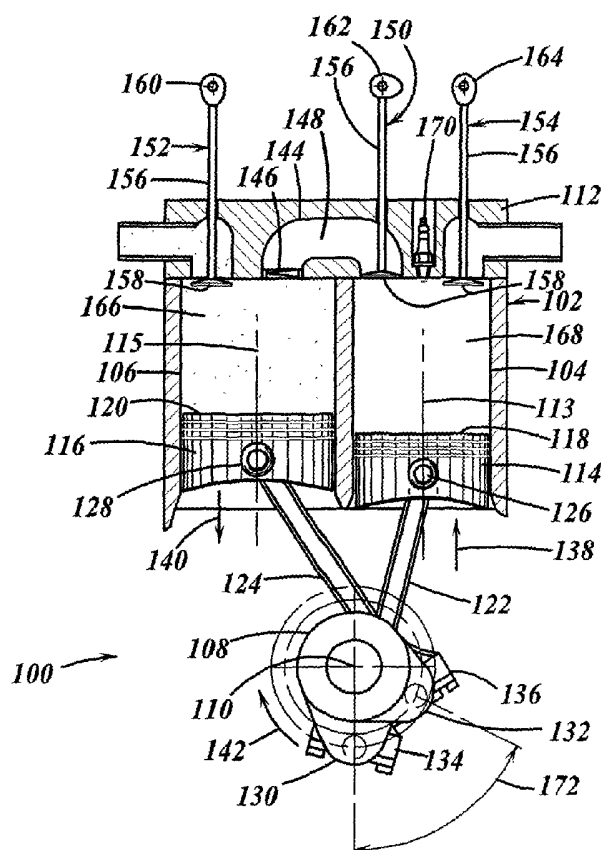
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[Continued on next page]

(54) Title: SPLIT-CYCLE FOUR STROKE ENGINE



(57) Abstract: An engine (100) has a crankshaft (108), rotating about a crankshaft axis (110) of the engine (100). An expansion piston (114) is slidably received within an expansion cylinder (104) and operatively connected to the crankshaft (108) such that the expansion piston (114) reciprocates through an expansion stroke and an exhaust stroke of a four stroke cycle during a single rotation of the crankshaft (108). A compression piston (116) is slidably received within a compression cylinder (106) and operatively connected to the crankshaft (108) such that the compression piston (116) reciprocates through an intake stroke and a compression stroke of the same four stroke cycle during the same rotation of the crankshaft (108). A ratio of cylinder volumes from BDC to TDC for either one of the expansion cylinder (104) and compression cylinder (106) is substantially 20 to 1 or greater.



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A. CLASSIFICATION OF SUBJECT MATTER

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US CL : 60/597; 123/52.2, 52.3, 53.1, 53.3, 53.5

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 60/597; 123/52.2, 52.3, 53.1, 53.3, 53.5

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)
EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,104,995 A (STEINBOCK) 08 August 1978 (08.08.1978), See the entire document.	1-30
A	US 4,111,177 A (REGUEIRO) 05 September 1978 (05.09.1978), See the entire document.	1-30
A	US 6,557,503 B2 (HAMPSON) 06 May 2003 (06.05.2003), See the entire document.	1-30
A	US 6,450,136 B1 (KLOMP et al.) 17 September 2002 (17.09.2002), See the entire document.	1-30

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

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