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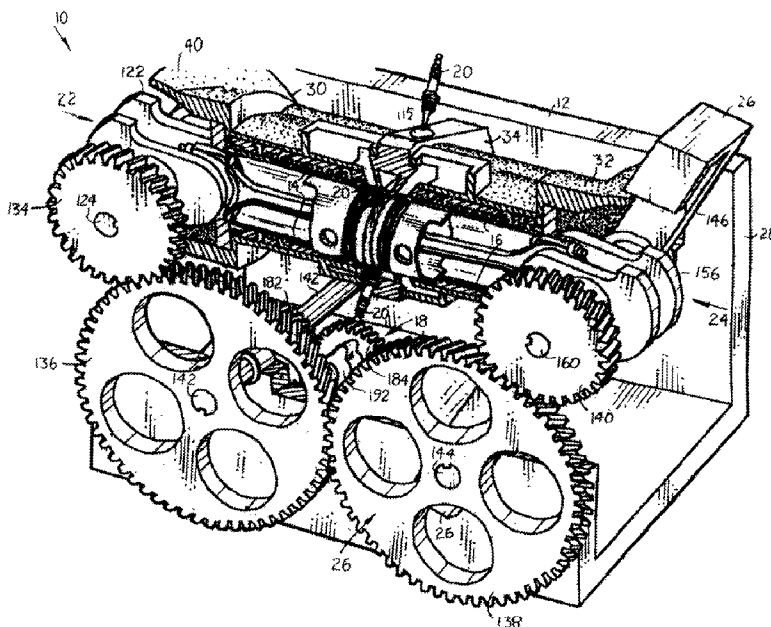
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(54) Title: AN INTERNAL COMBUSTION ENGINE



(57) Abstract: An internal combustion engine is provided. Facing pistons eliminate a cylinder head, thereby reducing heat losses through a cylinder head. Facing pistons also halve the stroke that would be required for one piston to provide the same compression ratio, and the engine can thus be run at higher revolutions per minute and produce more power. An internal sleeve valve is provided for space and other considerations. A combustion chamber size-varying mechanism allows for adjustment of the minimum size of an internal volume to increase efficiency at partial-power operation. Variable intake valve operation is used to control engine power.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/65870

A. CLASSIFICATION OF SUBJECT MATTER
 IPC: **F02B 25/08**(2006.01),**75/04**(2006.01);**F02N 3/00**(2006.01);**F01L 1/34**(2006.01);**F02P 15/02**(2006.01);**F01M 1/02**(2006.01)

 USPC: 123/48B,51AA,90.15,196R,310
 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. : Please See Continuation Sheet

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 AST: valve, linear, sleeve, oil, lubricant, spring, pressure, cam, follower, spark

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2,858,816 A (PRENTICE) 4 November 1958 (04.11.1958), see the figure	1
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Y		7
X	US 2,199,625 A (FIALA-FERNBRUGG) 7 May 1940 (07.05.1940), see figure 1.	11
X	US 3,780,719 A (WEIERTZ) 25 December 1973 (25.12.1973), see figure 1.	14
X	US 3,948,241 A (MELCHIOR) 6 April 1976 (06.04.1976), see figure 1.	15
X	US 5,803,042 A (BORTONE) 8 September 1998 (08.09.1998), see figure 2.	16
X	US 4,516,537 A (NKAHARA et al) 14 May 1985 (14.05.1985), see col. 12, lines 44+.	19

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family

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Continuation of B. FIELDS SEARCHED Item 1:

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