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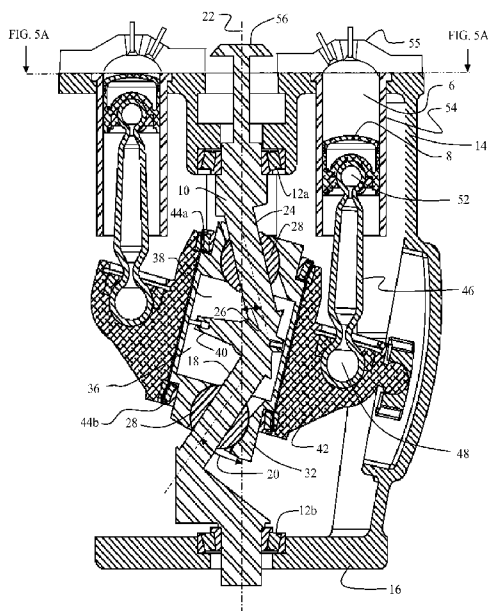


FIG. 5B

(57) Abstract: A variable stroke and compression ratio engine employs multiple pistons (8) connected to a wobbler (42). A crank (10) with an axis of rotation has an upper journal (24) with a first angle relative to the axis and a lower journal (18) with a second angle with respect to the axis. A cradle (32) connected for rotational motion with respect to the wobbler is carried by the crank with sliding engagement to the upper and lower journals for translation between a first high eccentricity position and second low eccentricity position.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2010/036897**A. CLASSIFICATION OF SUBJECT MATTER****F02B 75/04(2006.01)i, F02B 75/32(2006.01)i, F02D 15/02(2006.01)i**

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)

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: variable stroke, compression ratio, engine and wobbler

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2006-061663 A1 (TOROTADZE, VAKHTANG et al.) 15 June 2006 See the abstract, figs. 1-8 and claims 1-15.	1-19
A	US 5443043 A1 (NILSSON; PER-INGE et al.) 22 August 1995 See the abstract, figs. 1-7 and claims 1-6.	1-19
A	US 2004-0025814 A1 (CHARLES L. GRAY) 12 February 2004 See the abstract, figs. 1-14 and claims 1-57.	1-19
A	US 6637384 B1 (MENDLER; EDWARD CHARLES) 28 October 2003 See the abstract, figs. 1-4 and claims 1-23.	1-19

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

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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