

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
16 December 2004 (16.12.2004)

PCT

(10) International Publication Number
WO 2004/109073 A3

(51) International Patent Classification⁷: **F02B 33/10**

(21) International Application Number:
PCT/US2004/015717

(22) International Filing Date: 19 May 2004 (19.05.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/453,402 3 June 2003 (03.06.2003) US

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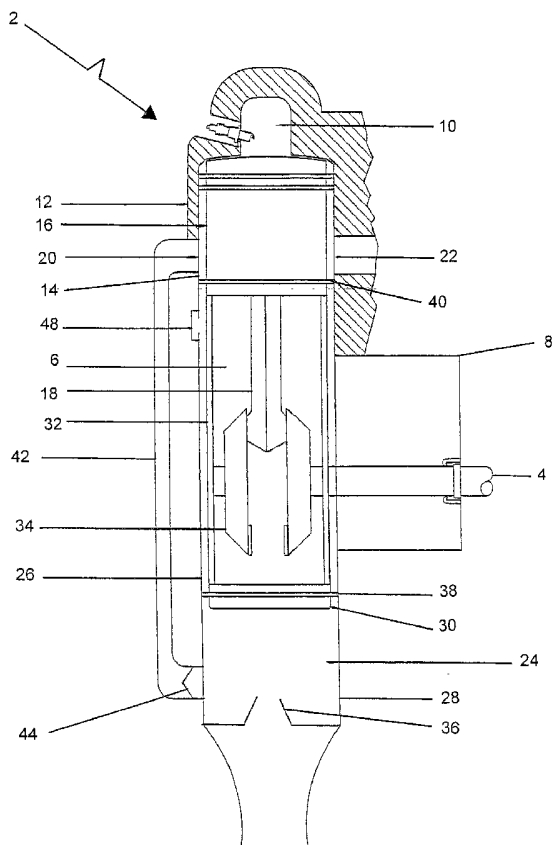
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(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
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TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

[Continued on next page]

(54) Title: INTERNAL COMBUSTION ENGINE AND METHOD OF ENHANCING ENGINE PERFORMANCE



(57) Abstract: An apparatus and method to enhance the overall performance of engines in one or more of the following ways: by increasing the power output; by reducing the level of unwanted atmospheric emissions; and by reducing engine wear. The apparatus is an engine (e.g., 2-stroke or 4-stroke, diesel or gasoline-fueled internal combustion engine) comprising a crankshaft, crankcase, combustion chamber, oil pan, piston, connecting rod, intake port, exhaust port, and scavenging pump assembly having an air cylinder and an air diaphragm. The scavenging pump assembly allows for the control of air and fuel intake port pressure by controllably boosting an intake mixture into the combustion chamber, while minimizing the potential for engine lubricating-oil to combine with the intake air-fuel mixture.

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SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:

31 March 2005

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/15717

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : F02B 33/10

US CL : 123/71R, 51B, 73C, 73R, 73A, 70R, 73AF

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. : 123/71R, 51B, 73C, 73R, 73A, 70R, 73AF

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)
WEST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 1,039,113 A2 (KURIBAYASHI) 27 September 2000 (27.09.2000), See the entire document.	1-5,7,9-14,16-21,23 and 25-30
Y	US 2,295,978 A (TOCE ET AL) 15 September 1942 (15.09.1942), See the entire document.	1-5,7,9-14,16-21,23 and 25-30



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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
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Date of the actual completion of the international search

01 February 2005 (01.02.2005)

Date of mailing of the international search report

17 FEB 2005

Name and mailing address of the ISA/US

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