

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
17 September 2009 (17.09.2009)

(10) International Publication Number
WO 2009/114351 A3

(51) International Patent Classification:
F01N 5/02 (2006.01) F01P 11/16 (2006.01)
F01P 7/14 (2006.01) F02G 5/02 (2006.01)

(71) Applicant (for all designated States except US): **GM GLOBAL TECHNOLOGY OPERATIONS, INC.** [US/US]; 300 Renaissance Center, P.O. Box 300, Detroit, MI 48265-3000 (US).

(21) International Application Number:
PCT/US2009/035962

(72) Inventors: **YANG, Jihui**; 277 Flanders Road, Lakeshore, Ontario N8N 3G2 (CA). **REYNOLDS, Michael, G.**; 1179 Doral Court, Troy, MI 48098 (US). **STABLER, Francis R.**; 2096 Cameo Drive, Troy, MI 48098-2409 (US).

(22) International Filing Date:
4 March 2009 (04.03.2009)

(25) Filing Language: English

(26) Publication Language: English

(74) Agent: **CICHOSZ, Vincent, A.**; Cichosz And Cichosz, PLLC, 129 E. Commerce Street, Milford, MI 48381 (US).

(30) Priority Data:
61/036,679 14 March 2008 (14.03.2008) US
12/389,442 20 February 2009 (20.02.2009) US

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,

[Continued on next page]

(54) Title: THERMAL MANAGEMENT FOR IMPROVED ENGINE OPERATION

(57) Abstract: A method comprising flowing engine combustion exhaust through a thermoelectric device and flowing engine coolant through the thermoelectric device to provide faster engine and transmission warming (coolant, oil).

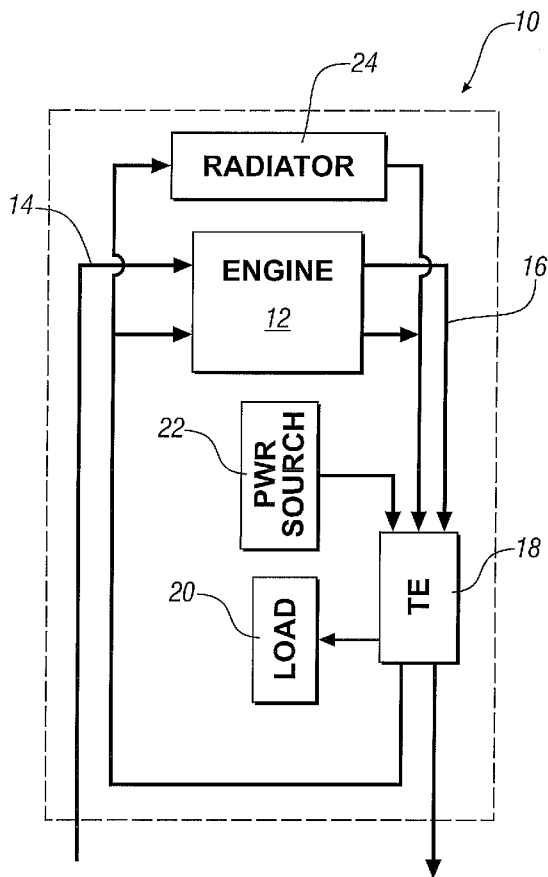


FIG. 1

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CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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, HR, HU, IE, IS, IT, LT, LU, LV,

MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

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

19 November 2009

A. CLASSIFICATION OF SUBJECT MATTER*F01N 5/02(2006.01)i, F01P 7/14(2006.01)i, F01P 11/16(2006.01)i, F02G 5/02(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)

IPC 8: F01N 5/02, F01P 7/14, F01P 11/16, F02G 5/02

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 since 1975

Japanese Utility Models and applications for Utility Models since 1975

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

KOMPASS (KIPO internal) & keywords: "engine", "exhaust gas", "coolant", "thermoelectric device", "radiator"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 7100369 B2 (YAMAGUCHI et al.) 5 September 2006 See the abstract; Figs. 1-18; column 2, line 57 - column 11, line 60.	1-5
A	US 2005-0204762 A1 (SASAKI et al.) 22 September 2005 See the abstract; Figs. 1-7; paragraphs [0033]-[0117].	1-5
A	US 2006-0225441 A1 (GOENKA et al.) 12 October 2006 See the abstract; Figs. 1-4; paragraphs [0014]-[0041].	1-5
A	WO 2004-092662 A1 (TOYOTA MOTOR CO., LTD.) 28 October 2004 See the abstract; Fig. 1; page 5, line 20 - page 10, line 29.	1-5

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

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Date of the actual completion of the international search

24 SEPTEMBER 2009 (24.09.2009)

Date of mailing of the international search report

28 SEPTEMBER 2009 (28.09.2009)

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
Government Complex-Daejeon, 139 Seonsa-ro, Seo-gu,
Daejeon 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

YANG Kyung Jinn

Telephone No. 82-42-481-8556



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2009/035962

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