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- (71) Applicant: UNITED TECHNOLOGIES CORPORATION [US/US]; 1 Financial Plaza, Hartford, Connecticut 06101 (US).
- (72) Inventors: BLAIR, Michael F.; 119 Tonica Spring Trail, Manchester, Connecticut 06040 (US). PROPHET-ER-HINCKLEY, Tracy A.; 44 Oak Forest Drive, Manchester, Connecticut 06042 (US). ZELESKY, Mark F.; 14 Norma's Way, Bolton, Connecticut 06043 (US).

(74) Agent: O'SHEA, Patrick J.; O'Shea Getz P.C. c/o CPA Global, P.O. Box 52050, Minneapolis, Minnesota 55402 (US).

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[Continued on next page]

(54) Title: TURBINE ENGINE COOLING SYSTEM WITH AN OPEN LOOP CIRCUIT

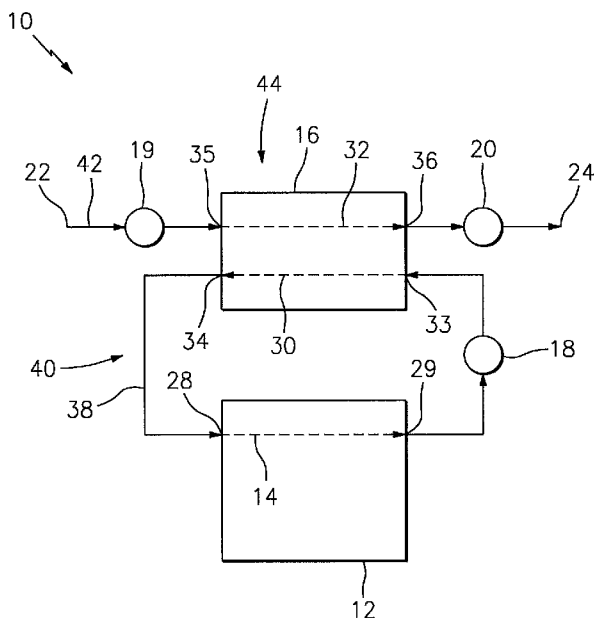


FIG. 1

(57) Abstract: A turbine engine system includes a heat source, a heat exchanger, a cooling medium inlet and a cooling medium outlet. The heat source includes a first passage. The heat exchanger includes a second passage and a third passage. The first and the second passages are configured in a closed loop circuit. The third passage is configured between the inlet and the outlet in an open loop circuit.





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

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INTERNATIONAL SEARCH REPORT

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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)

F02C 7/12; F01D 25/12; F01D 25/00; F02C 7/224; B01F 3/04; F24F 6/18; B63H 21/10; F01D 25/18; F04D 29/58; F02K 3/06

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: open loop circuit, closed loop circuit, cooling medium, heat exchanger, and gas turbine

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2012-0243970 A1 (HELLGREN et al.) 27 September 2012 See paragraphs [0024]-[0038] and figures 1,2.	1-3, 6, 13-20
A		4, 5, 7-12
Y	US 6869324 B2 (MATSUDA, YOSHIMOTO) 22 March 2005 See column 4, line 45 - column 5, line 57 and figure 1.	1-3, 6, 13-20
A	WO 2009-140100 A1 (GENERAL ELECTRIC COMPANY) 19 November 2009 See page 3, line 19 - page 7, line 8 and figures 1-3.	1-20
A	EP 1754863 A2 (GENERAL ELECTRIC COMPANY) 21 February 2007 See paragraphs [0012]-[0016] and figure 1.	1-20
A	US 2009-0121367 A1 (LUNDGREEN et al.) 14 May 2009 See paragraphs [0024]-[0029] and figure 1.	1-20

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

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International Application Division
Korean Intellectual Property Office
189 Cheongsu-ro, Seo-gu, Daejeon Metropolitan City, 302-701,
Republic of Korea

Facsimile No. +82-42-472-7140

Authorized officer

AHN, Jae Yul

Telephone No. +82-42-481-8525



INTERNATIONAL SEARCH REPORT

Information on patent family members

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