

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2014/023504**A. CLASSIFICATION OF SUBJECT MATTER****F02C 7/12(2006.01)i, F23M 5/04(2006.01)i, F23R 3/42(2006.01)i, F02C 3/14(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)

F02C 7/12; F02G 3/00; F02C 1/00; F23R 3/06; F23M 5/04; F23R 3/42; F02C 3/14

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: gas turbine engine, grommet, liner assembly, hole, passage, and combustor

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4622821 A (MADDEN, THOMAS J.) 18 November 1986 See abstract, column 3, line 29 - column 4, line 43, claims 1-6 and figures 1-5.	1-20
A	US 2003-0213250 A1 (PACHECO-TOUGAS et al.) 20 November 2003 See abstract, paragraphs [0037]-[0066] and figures 3-13.	1-20
A	US 2007-0130953 A1 (BURD et al.) 14 June 2007 See abstract, paragraphs [0024]-[0036] and figures 1-7.	1-20
A	US 2008-0115499 A1 (PATEL et al.) 22 May 2008 See abstract, paragraphs [0021]-[0031] and figures 1-6.	1-20
A	US 4700544 A (FUCCI, ROBERT C.) 20 October 1987 See abstract, column 2, line 20 - column 3, line 25 and figures 1-4. (Note: For the claim 8(1), the claim was renumbered by this authority because the claim 8 was found twice.)	1-20



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

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"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

"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

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

23 December 2014 (23.12.2014)

Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2014/023504

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4622821 A	18/11/1986	EP 0187731 A1 EP 0187731 B1 JP 06-084814 B2 JP 61-161338 A	16/07/1986 13/09/1989 26/10/1994 22/07/1986
US 2003-0213250 A1	20/11/2003	DE 60336954 D1 EP 1363075 A2 EP 1363075 A3 EP 1363075 B1 EP 2282121 A1 EP 2322857 A1 JP 03954525 B2 JP 2003-336845 A JP 2006-292362 A US 7093439 B2	16/06/2011 19/11/2003 13/07/2005 04/05/2011 09/02/2011 18/05/2011 08/08/2007 28/11/2003 26/10/2006 22/08/2006
US 2007-0130953 A1	14/06/2007	EP 1798474 A2 EP 1798474 A3 IL 180063 D0 JP 2007-163130 A RU 2006144596 A US 7631502 B2	20/06/2007 30/06/2010 31/10/2007 28/06/2007 20/06/2008 15/12/2009
US 2008-0115499 A1	22/05/2008	CA 2610263 A1 US 7748221 B2	17/05/2008 06/07/2010
US 4700544 A	20/10/1987	None	