

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
24 August 2006 (24.08.2006)

PCT

(10) International Publication Number
WO 2006/088663 A3

(51) International Patent Classification:
F02K 3/02 (2006.01)

(21) International Application Number:
PCT/US2006/003837

(22) International Filing Date: 3 February 2006 (03.02.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/057,958 15 February 2005 (15.02.2005) US

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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, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, 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, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

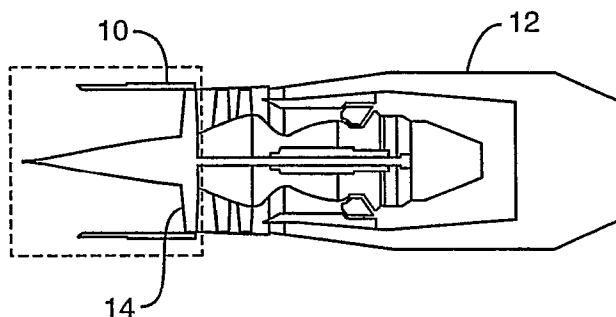
Published:

- with international search report
- 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:
4 October 2007

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.

(54) Title: JET ENGINE INLET-FAN SYSTEM AND DESIGN METHOD



(57) Abstract: A supersonic aircraft engine axial fan that includes a rotating blade row having blades that receive a supersonic entry flow in the absolute frame and decelerate the flow to a lower supersonic or subsonic velocity exit flow while adding work to the flow to increase stagnation pressure. It is preferred that the lower velocity be subsonic. When the fan is combined with a suitably designed inlet, the propulsion system is compact and lighter in weight than conventional engines for supersonic aircraft.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US06/03837

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - F02K 3/02 (2007.01)

USPC - 60/226.1

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) - F02K 3/00, 3/02 (2007.01)

USPC - 60/226.1, 269

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

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

MicroPatent, IP.com, DialogPro

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,826,424 A (KLEES) 27 October 1998 (27.10.1998) entire document	1-3
X	US 5,074,118 A (KEPLER) 24 December 1991 (24.12.1991) entire document	1-5, 8
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Y		
X	US 4,678,398 A (DODGE et al) 07 July 1987 (07.07.1987) entire document	1-3, 6
Y	US 6,004,095 A (WAITZ et al) 21 December 1999 (21.12.1999) entire document	7
A	LEWIS, R.I., and RYAN, P.G., Surface Vorticity Theory for an Axisymmetric Potential Flow Past Annular Aerofoils and Bodies of Revolution with Application to Ducted Propellers and Cows, Journal of Mechanical Engineering Science, August 1972, Vol. 14, No. 4, pp 280-291.	9

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Date of the actual completion of the international search

13 June 2007

Date of mailing of the international search report

02 AUG 2007

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