



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
19.01.2011 Bulletin 2011/03

(51) Int Cl.:
F01D 17/16 (2006.01) **F04D 29/56** (2006.01)

(43) Date of publication A2:
07.07.2010 Bulletin 2010/27

(21) Application number: **09180041.7**

(22) Date of filing: **18.12.2009**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR
Designated Extension States:
AL BA RS

(72) Inventor: **Bhatnagar, Shubhra**
560037 Bangalore, Karnataka (IN)

(74) Representative: **Gray, Thomas et al**
GE International Inc.
Global Patent Operation - Europe
15 John Adam Street
London WC2N 6LU (GB)

(30) Priority: **06.01.2009 US 349107**

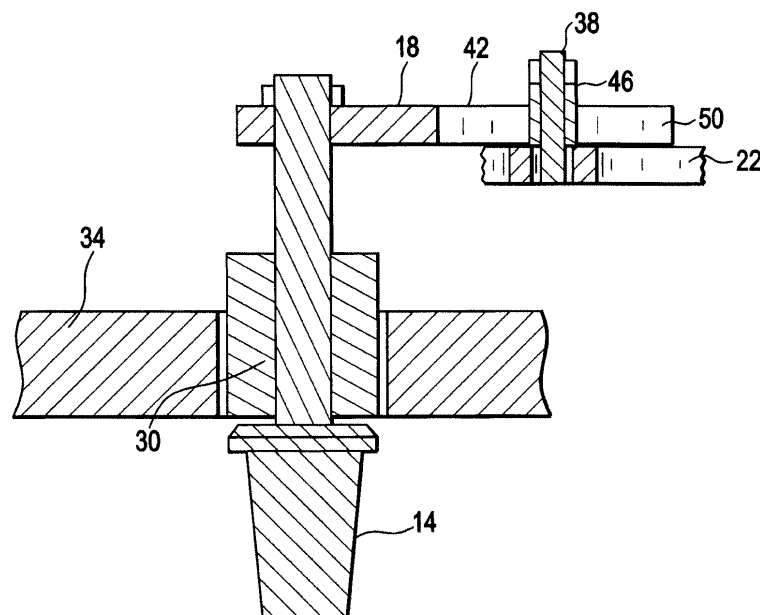
(71) Applicant: **General Electric Company**
Schenectady, NY 12345 (US)

(54) **Variable position guide vane actuation system and method**

(57) Disclosed herein is a turbine variable position guide vane actuation system (10). The system (10) includes, a plurality of variable position guide vanes (14), a plurality of actuators (18) and each actuator (18) is in

operable communication with one of the plurality of variable position guide vanes (14), and at least one structure (22) in operable communication with a plurality of the plurality of actuators (18) and movable parallel to an axis of the turbine (26).

FIG. 2





EUROPEAN SEARCH REPORT

Application Number
EP 09 18 0041

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	JP 58 059400 A (HITACHI LTD) 8 April 1983 (1983-04-08) * figures 1,2 *	1,5-13	INV. F01D17/16 F04D29/56
X	US 3 508 839 A (STRUB RENE) 28 April 1970 (1970-04-28) * figures *	1,5-13	
X	US 4 558 986 A (FALTYS JAN [CH]) 17 December 1985 (1985-12-17) * figures *	1,5-13	
			TECHNICAL FIELDS SEARCHED (IPC)
			F01D F04D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 14 December 2010	Examiner Raspo, Fabrice
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

 2
EPO FORM 1503 03.82 (F04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 09 18 0041

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

14-12-2010

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 58059400	A	08-04-1983	NONE	

US 3508839	A	28-04-1970	CH 485124 A	31-01-1970
			FR 1590020 A	06-04-1970
			NL 6801665 A	17-07-1969

US 4558986	A	17-12-1985	CH 661772 A5	14-08-1987
			DE 3322192 C1	12-07-1984
			DE 3460468 D1	18-09-1986
			EP 0127219 A1	05-12-1984
			JP 1646216 C	13-03-1992
			JP 3012201 B	19-02-1991
			JP 59231106 A	25-12-1984
