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(54) Title: MONITORING A DYNAMIC PARAMETER SUCH AS TORQUE IN A ROTATIONAL SYSTEM

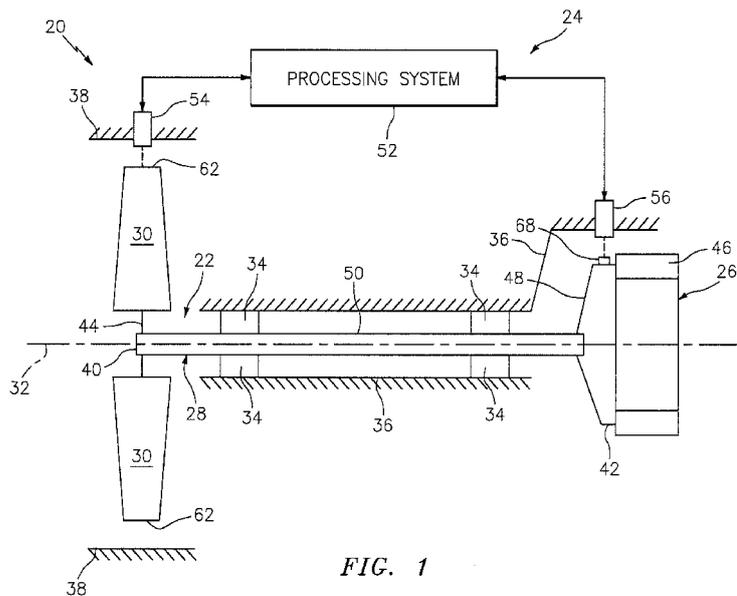


FIG. 1

(57) Abstract: A system is provided for a turbine engine. The system includes a rotor assembly and a monitoring system. The rotor assembly includes a plurality of rotor blades connected to a shaft. The monitoring system includes a processing system. This processing system is adapted to receive blade data indicative of a rotational position of at least a first of the rotor blades. The processing system is also adapted to process shaft data with the blade data to provide torque data indicative of a torque to which at least a portion of the rotor assembly is being subjected, where the shaft data is indicative of a rotational position of the shaft.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2014/065000**A. CLASSIFICATION OF SUBJECT MATTER****G01L 3/08(2006.01)i, G01D 5/26(2006.01)i, F02C 7/32(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)

G01L 3/08; G01R 13/00; F01D 25/00; G06F 19/00; G06F 17/00; F02K 9/38; G01M 13/02; G01R 29/00; G01D 5/26; F02C 7/32

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: torque, rotor, blade, shaft, gear train, actual time and estimated time

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2006-0122798 A1 (TEOLIS et al.) 08 June 2006 See abstract, paragraphs [0020]-[0027], claim 1 and figures 1-8b.	1-20
A	US 2013-0006541 A1 (KOMINSKY, DANIEL) 03 January 2013 See abstract, paragraphs [0021]-[0034], claim 1 and figures 1-7.	1-20
A	US 2013-0116937 A1 (CALHOUN et al.) 09 May 2013 See abstract, paragraphs [0005]-[0007], claims 1-8 and figures 1-14.	1-20
A	US 2012-0035861 A1 (HADLEY et al.) 09 February 2012 See abstract, paragraphs [0014]-[0023], claims 1-7 and figures 1-4.	1-20
A	US 2011-0041474 A1 (GEREZ et al.) 24 February 2011 See abstract, paragraphs [0061]-[0073], claim 13 and figures 1-3.	1-20

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

* Special categories of cited documents:

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"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

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"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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