Title (en)

SYSTEM FOR DETECTING ABNORMAL MOVEMENT OF A SHAFT IN A GAS TURBINE ENGINE

Title (de)

SYSTEM ZUR DETEKTION VON ANORMALER BEWEGUNG EINER WELLE IN EINEM GASTURBINENMOTOR

Title (fr)

SYSTÈME DE DÉTECTION DE MOUVEMENT ANORMAL D'UN ARBRE DANS UN MOTEUR À TURBINE À GAZ

Publication

EP 3722563 A1 20201014 (EN)

Application

EP 20165374 A 20200324

Priority

GB 201905005 A 20190409

Abstract (en)

A system (10) for detecting abnormal movement resulting from breakage of a shaft in a gas turbine engine. The system comprises a detection circuit including a frangible and brittle fuse portion (12) made from a conductive ceramic and a plunger (18) connected to or adjacent the frangible fuse portion, wherein the plunger may be displaced as a result of movement of the broken gas turbine shaft to break the frangible fuse portion (12) and thereby alter the detection circuit.

IPC 8 full level

F01D 17/02 (2006.01); **F01D 21/04** (2006.01)

CPC (source: EP GB US)

F01D 17/02 (2013.01 - EP); **F01D 21/003** (2013.01 - US); **F01D 21/02** (2013.01 - US); **F01D 21/04** (2013.01 - EP); **F01D 21/045** (2013.01 - EP GB); F05D 2240/60 (2013.01 - EP); F05D 2260/80 (2013.01 - EP); F05D 2270/09 (2013.01 - EP)

Citation (applicant)

- US 6607349 B2 20030819 - MULERA TOM G [US], et al
- US 2003091430 A1 20030515 - MULERA TOM G [US], et al
- GB 2468686 A 20100922 - WESTON AEROSPACE LTD [GB]
- WO 9900585 A1 19990107 - MTU MUENCHEN GMBH [DE], et al
- EP 3106626 A1 20161221 - WESTON AEROSPACE LTD [GB]

Citation (search report)

- [AD] EP 3106626 A1 20161221 - WESTON AEROSPACE LTD [GB]
- [A] EP 3128307 A1 20170208 - WESTON AEROSPACE LTD [GB]
- [A] EP 3435058 A1 20190130 - ROLLS ROYCE DEUTSCHLAND LTD & CO KG [DE]

Designated contracting state (EPC)

AL 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 RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3722563 A1 20201014; **EP 3722563 B1 20231227**; CA 3077832 A1 20201009; GB 201905005 D0 20190522; GB 2583078 A 20201021; GB 2583078 B 20221005; US 2020325793 A1 20201015

DOCDB simple family (application)

EP 20165374 A 20200324; CA 3077832 A 20200402; GB 201905005 A 20190409; US 202016836162 A 20200331