

Title (en)

Gas turbine and method of monitoring the operation of such a gasturbine

Title (de)

Verfahren zur Betriebsüberwachung einer Gasturbine und Gasturbine

Title (fr)

Turbine à gaz et méthode de surveillance du fonctionnement d'une telle turbine à gaz

Publication

EP 1696102 A1 20060830 (DE)

Application

EP 05004366 A 20050228

Priority

EP 05004366 A 20050228

Abstract (en)

The method involves closing turbine blades (12, 14) upon damage of a thermally protective layer (23) of the turbine blades on the basis of an increase of temperature of a cooling medium (K) e.g. a cooling air, that flows into a cooling medium channel (29). An automatic load reduction or disconnection of a gas turbine is introduced as soon as the increase of temperature of the cooling medium is determined. An independent claim is also included for a gas turbine with a thermally protective layer.

IPC 8 full level

F01D 5/18 (2006.01); **F01D 5/28** (2006.01); **F01D 17/08** (2006.01); **F01D 21/12** (2006.01)

CPC (source: EP)

F01D 5/187 (2013.01); **F01D 5/288** (2013.01); **F01D 17/085** (2013.01); **F01D 21/12** (2013.01); **F05D 2250/184** (2013.01); **F05D 2270/112** (2013.01); **F05D 2270/303** (2013.01); **F05D 2300/611** (2013.01)

Citation (search report)

- [X] US 6200088 B1 20010313 - ZOMBO PAUL J [US], et al
- [X] WO 0146660 A1 20010628 - SIEMENS WESTINGHOUSE POWER [US]
- [A] DE 19736276 A1 19990225 - ABB RESEARCH LTD [CH]
- [A] EP 0493111 A1 19920701 - UNITED TECHNOLOGIES CORP [US]
- [XA] AMORY D C ET AL: "IMPROVING GAS TURBINE EFFICIENCY USING OPTICAL PYROMETRY", TURBOMACHINERY INTERNATIONAL, BUSINESS JOURNALS, NORWALK, CT, US, vol. 45, no. 1, January 2004 (2004-01-01), pages 22 - 24, XP001190994, ISSN: 0149-4147
- [A] PATENT ABSTRACTS OF JAPAN vol. 1997, no. 06 30 June 1997 (1997-06-30)

Cited by

US11215074B2; EP2565387A1; CN116976109A; US11913387B2

Designated contracting state (EPC)

CH DE GB IT LI

DOCDB simple family (publication)

EP 1696102 A1 20060830; EP 1696102 B1 20150729

DOCDB simple family (application)

EP 05004366 A 20050228