

Title (en)
CONTROL METHOD AND UNIT FOR CONTROLLING THE CLEARANCE OF A HIGH-PRESSURE TURBINE TO REDUCE THE EFFECT OF
EGT OVERSHOOT

Title (de)
STEUERVERFAHREN UND EINHEIT ZUR STEUERUNG DES SPIELS EINER HOCHDRUCKTURBINE ZUR VERMINDERUNG DES EFFEKTS
VON EGT-ÜBERSCHWINGEN

Title (fr)
PROCEDE ET UNITE DE COMMANDE POUR LE PILOTAGE DU JEU D'UNE TURBINE HAUTE PRESSION POUR LA REDUCTION DE L'EFFET
DE DEPASSEMENT EGT

Publication
EP 4088009 A1 20221116 (FR)

Application
EP 21705233 A 20210104

Priority
• FR 2000131 A 20200108
• FR 2021050004 W 20210104

Abstract (en)
[origin: WO2021140292A1] Method for controlling a clearance between blade tips of an aircraft engine turbine rotor and a turbine shroud, which comprises estimating the clearance to be controlled and controlling a valve supplying a flow of air to the turbine shroud depending on the clearance estimated, said method comprising: - detecting (100) a transient acceleration phase on the basis of at least one parameter representative of the engine; - receiving (102) data relating to the aircraft altitude; - determining (104) data representative of the temperature of the rotor during the transient acceleration phase and at a steady speed and calculating a relative difference in temperatures; if the transient acceleration phase is detected and if the relative difference in temperatures is greater than a predetermined minimum temperature difference, -defining a valve opening level and a valve opening time by means of a predefined altitude/relative temperature difference look-up table; and controlling (114) the opening of the valve in order to supply the flow of air to the turbine shroud.

IPC 8 full level
F01D 11/14 (2006.01); **F01D 11/24** (2006.01); **F01D 19/02** (2006.01); **F01D 21/12** (2006.01); **F01D 25/12** (2006.01)

CPC (source: EP US)
F01D 11/14 (2013.01 - EP); **F01D 11/24** (2013.01 - EP US); **F01D 19/02** (2013.01 - EP); **F01D 21/12** (2013.01 - EP); **F01D 25/12** (2013.01 - EP); **F05D 2220/323** (2013.01 - US); **F05D 2240/55** (2013.01 - US); **F05D 2260/201** (2013.01 - US)

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

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
FR 3105980 A1 20210709; **FR 3105980 B1 20220107**; CN 114945734 A 20220826; CN 114945734 B 20230919; EP 4088009 A1 20221116; US 12000290 B2 20240604; US 2023044006 A1 20230209; WO 2021140292 A1 20210715

DOCDB simple family (application)
FR 2000131 A 20200108; CN 202180008246 A 20210104; EP 21705233 A 20210104; FR 2021050004 W 20210104; US 202117757981 A 20210104