

Title (en)

CLEARANCE CONTROL SYSTEM FOR A TURBOMACHINE

Title (de)

SPALTKONTROLLSYSTEM FÜR EINE STRÖMUNGSMASCHINE

Title (fr)

SYSTÈME DE CONTRÔLE DE JEU POUR UNE TURBOMACHINE

Publication

**EP 2435664 B1 20160817 (DE)**

Application

**EP 10730045 A 20100518**

Priority

- DE 2010000560 W 20100518
- DE 102009023062 A 20090528

Abstract (en)

[origin: WO2010136014A2] The invention relates to a clearance control system for adjusting a running clearance (L) between a rotor (12) having rotor blades (10) of a turbomachine (14), especially a gas turbine, and a casing (18) which surrounds at least sections thereof and comprises at least two segments (16a-d). The clearance control system comprises at least one adjusting gear (20) which can be coupled to at least one segment (16a-d) of the casing (18) and which is used to radially move the at least one segment (16a-d) relative to a rotational axis (D) of the rotor (12) to adjust the running clearance (L), and an adjusting element (22) which can be mounted around the rotor (12), coupled to the at least one adjusting gear (20) and moved relative to the adjusting gear (20) to actuate the same. The adjusting element (22) can be shifted axially relative to the rotational axis (D) of the rotor (12) or can be swiveled relative to the rotor (12) to adjust the running clearance (L) and the at least one adjusting gear (20) is designed to convert at least one mainly axial movement of the adjusting gear (20) to an at least mainly radial movement of the associated segment (16a-d) of the casing (18). The invention further relates to a turbomachine (14), especially a gas turbine, and to a method for adjusting a running clearance (L).

IPC 8 full level

**F01D 11/02** (2006.01)

CPC (source: EP US)

**F01D 11/22** (2013.01 - EP US); **F05D 2240/11** (2013.01 - EP US); **F05D 2260/50** (2013.01 - EP 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 SE SI SK SM TR

DOCDB simple family (publication)

**DE 102009023062 A1 20101202**; EP 2435664 A2 20120404; EP 2435664 B1 20160817; US 2012057958 A1 20120308;  
US 9068471 B2 20150630; WO 2010136014 A2 20101202; WO 2010136014 A3 20110623

DOCDB simple family (application)

**DE 102009023062 A 20090528**; DE 2010000560 W 20100518; EP 10730045 A 20100518; US 201013266274 A 20100518