Title (en)

Turbine blade tip gap reduction system for a turbine engine

Title (de)

System zur Turbinenschaufelspitzen-Abstandsreduktion für einen Turbinenmotor

Title (fr)

Système de réduction d'espace d'extrémité de pale de turbine pour moteur à turbine

Publication

EP 1900907 A3 20091216 (EN)

Application

EP 07113096 A 20070725

Priority

US 51801806 A 20060908

Abstract (en)

[origin: EP1900907A2] A turbine blade gap control system (10) configured to move a vane carrier (22) and attached ring segments (16) of a turbine engine (18) axially relative to a turbine blade assembly (28) to reduce the gaps (12) between the tips (20) of the turbine blades (14) and the ring segments (16) to increase the efficiency of the turbine engine (18) once operating in a steady state condition. The turbine blade assembly (28) may be formed from a plurality rows (30) of turbine blades (14) extending radially from a rotor (32), wherein each row (30) may be formed from a plurality of turbine blades (14) and wherein the turbine blades (14) may have tips (20) positioned at an acute angle (24) relative to a rotational axis (26) of the turbine blade assembly (28). A vane carrier (22) may be positioned concentric with the rotor (32) and positioned radially outward from the turbine blades (14), and a plurality of ring segments (16) may be attached to the vane carrier (22).

IPC 8 full level

F01D 11/22 (2006.01)

CPC (source: EP US)

F01D 11/22 (2013.01 - EP US); F05D 2240/11 (2013.01 - EP US); F05D 2250/40 (2013.01 - EP US)

Citation (search report)

- [X] EP 1249577 A1 20021016 - SIEMENS AG [DE]
- [XI] EP 1676978 A2 20060705 - UNITED TECHNOLOGIES CORP [US]

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Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

EP 1900907 A2 20080319; **EP 1900907 A3 20091216**; CA 2600788 A1 20080308; US 2008063513 A1 20080313

DOCDB simple family (application)

EP 07113096 A 20070725; CA 2600788 A 20070906; US 51801806 A 20060908