

Title (en)

System to keep the blade tip clearance in a gas turbine constant

Title (de)

System zur Konstanthaltung des Schaufelspielen bei einer Gasturbine

Title (fr)

Système pour maintenir le jeu des extrémités des aubes d'une turbine à gaz à constant

Publication

EP 0924388 B1 20030924 (DE)

Application

EP 98121690 A 19981113

Priority

DE 19756734 A 19971219

Abstract (en)

[origin: EP0924388A2] The tips (6a) of the blades are enclosed by ring segments (5) hanging in the turbine housing with a gap (s) controlled in width by a tempering channel system to which an air stream (8) is supplied which is conveyed by the compressor part of the turbine past the combustion chamber. A diaphragm ring (11) closes the measuring bores (7b) more or less in dependence on the temperature of the air stream (8) which is brought up to same. A fraction of the hot gas flowing through the guide vanes (4) and rotor blades (2) can pass through a gap (13) between the stator ring (10) and ring segments (5) at least with a low turbine load, and into the ring chamber (7a) and into the rear area of the turbine, seen in the flow direction.

IPC 1-7

F01D 11/24; F01D 1/16; F01D 11/18

IPC 8 full level

F01D 1/16 (2006.01); **F01D 11/18** (2006.01); **F01D 11/24** (2006.01)

CPC (source: EP US)

F01D 11/18 (2013.01 - EP US); **F01D 11/24** (2013.01 - EP US)

Cited by

DE102014217832A1; EP2239423A1; FR2899273A1; EP3324003A1; US11236631B2; US11255212B2; WO2010112421A1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0924388 A2 19990623; **EP 0924388 A3 20000816**; **EP 0924388 B1 20030924**; DE 19756734 A1 19990624; DE 59809709 D1 20031030; US 6126390 A 20001003

DOCDB simple family (application)

EP 98121690 A 19981113; DE 19756734 A 19971219; DE 59809709 T 19981113; US 19766898 A 19981123