

Title (en)

OPEN-COOLED COMPONENT FOR A GAS TURBINE, COMBUSTION CHAMBER, AND GAS TURBINE

Title (de)

OFFEN GEKÜHLTES BAUTEIL FÜR EINE GASTURBINE, BRENNKAMMER UND GASTURBINE

Title (fr)

COMPOSANT OUVERT REFROIDI DESTINE A UNE TURBINE A GAZ, CHAMBRE DE COMBUSTION ET TURBINE A GAZ

Publication

EP 1651841 B1 20070822 (DE)

Application

EP 04739955 A 20040616

Priority

- EP 2004006491 W 20040616
- EP 03015216 A 20030704
- EP 04739955 A 20040616

Abstract (en)

[origin: WO2005003517A1] The invention relates to an open-cooled component for a gas turbine, said component having an outer wall (20) that is subjected to a hot gas and at least partially defines a first cavity (15) for a first means. Said outer wall is provided with through-openings (3, 12) which open up into the cavity (15) on one side and into a hot gas chamber (21) on the other. The inventive component also comprises at least one second cavity for admixing a second means, said second cavity being connected to the through-openings (3, 12) in a fluid-connected manner. The aim of the invention is to provide a component for a gas turbine, which can be used to reduce flashback and spontaneous ignition during the supply of fuel to the cooling air. To this end, the second cavity is formed by supply channels (9, 13) provided in the outer wall (20), said supply channels being connected to the through-openings (3, 12) embodied as boreholes by means of transversal channels (4) in such a way that the two means can only be mixed once inside the boreholes. The invention also relates to a combustion chamber for a gas turbine, and to a gas turbine comprising one such component.

IPC 8 full level

F01D 5/18 (2006.01); **F01D 25/12** (2006.01); **F02C 7/22** (2006.01); **F23M 5/08** (2006.01); **F23R 3/00** (2006.01); **F23R 3/30** (2006.01)

CPC (source: EP US)

F01D 5/186 (2013.01 - EP US); **F01D 25/12** (2013.01 - EP US); **F23M 5/085** (2013.01 - EP US); **F23R 3/002** (2013.01 - EP US); **F23R 3/30** (2013.01 - EP US); **F05D 2260/202** (2013.01 - EP US); **F05D 2260/221** (2013.01 - EP US)

Designated contracting state (EPC)

CH DE ES GB IT LI PL

DOCDB simple family (publication)

WO 2005003517 A1 20050113; CN 100353032 C 20071205; CN 1806094 A 20060719; DE 502004004752 D1 20071004; EP 1651841 A1 20060503; EP 1651841 B1 20070822; ES 2288687 T3 20080116; PL 1651841 T3 20080131; US 2007101722 A1 20070510; US 2010083665 A1 20100408; US 7658076 B2 20100209; US 8347632 B2 20130108

DOCDB simple family (application)

EP 2004006491 W 20040616; CN 200480016653 A 20040616; DE 502004004752 T 20040616; EP 04739955 A 20040616; ES 04739955 T 20040616; PL 04739955 T 20040616; US 56164104 A 20040616; US 63194009 A 20091207