

Title (en)

COOLING HOLES FOR GAS TURBINE COMBUSTOR LINER HAVING A NON-UNIFORM DIAMETER THERETHROUGH

Title (de)

KÜHLLÖCHER FÜR EINE GASTURBINENBRENNKAMMER-AUSKLEIDUNG MIT EINEM NICHTGLEICHFÖRMIGEN DURCHMESSER DADURCH

Title (fr)

TROUS DE REFOUILLISSEMENT POUR CHEMISE DE CHAMBRE DE COMBUSTION DE TURBINE À GAZ AYANT UN DIAMÈTRE NON UNIFORME AU TRAVERS

Publication

EP 2153133 A1 20100217 (EN)

Application

EP 08731322 A 20080304

Priority

- US 2008055758 W 20080304
- US 74312607 A 20070501

Abstract (en)

[origin: US2008271457A1] A gas turbine combustor liner, including a shell having a first end adjacent to an upstream end of the combustor and a second end adjacent to a downstream end of the combustor, where the shell also has a hot side, a cold side, and a centerline axis therethrough. A plurality of small, closely-spaced film cooling holes are formed in the shell through which air flows for providing a cooling film along the hot side of the shell. Each cooling hole has a non-uniform diameter as it extends through the shell. In particular, each cooling hole includes a first opening located at the cold side of the shell having a first diameter and a second opening located at the hot side of the shell having a second diameter, wherein the second diameter of the second opening is larger than the first diameter of the first opening. It is preferred that the shape of each cooling hole be substantially frusto-conical.

IPC 8 full level

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CPC (source: EP US)

F23R 3/002 (2013.01 - EP US); **F23R 3/06** (2013.01 - EP US); **F23R 2900/03042** (2013.01 - EP US); **Y02T 50/60** (2013.01 - EP US)

Citation (search report)

See references of WO 2008137201A1

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