

Title (en)
Gas-turbine-component

Title (de)
Gasturbinenkomponente

Title (fr)
Composant de turbine à gaz

Publication
EP 2568118 A1 20130313 (EN)

Application
EP 11180912 A 20110912

Priority
EP 11180912 A 20110912

Abstract (en)
Gas-turbine-component (GTC) to be exposed to a hot-gas (HG) comprising at least one film-cooling-hole (FCH) joining into a hot-gas-path (HGP) at an outer surface (OSF) of the gas-turbine-component (GTC), wherein the film-cooling-hole (FCH) is a channel (FC) through a wall-thickness (WTH) of a wall (W) extending from an inner surface (ISF) to said outer surface (OSF), wherein the cooling channel (FC) extends along an axis (X), wherein said cooling fluid (CF) is ejected into said hot-gas-path (HGP), comprising a velocity component (VC) into said flow direction (FD). To improve the cooling-efficiency at least the part of the edge of said inner orifice (IOF) of the cooling channel (FC) joining the inner surface (ISF), which has an angle (\pm) smaller 90° with said wall's inner surface (ISF) is made blunt by widening the inner orifice (IOF) such that the cooling fluid (CF) entering the channel (FC) is accelerated and deflected more moderately than without the widening.

IPC 8 full level
F01D 5/18 (2006.01)

CPC (source: EP)
F01D 5/186 (2013.01); **F05D 2250/292** (2013.01); **F05D 2250/323** (2013.01); **F05D 2250/324** (2013.01); **F05D 2250/70** (2013.01); **F05D 2260/221** (2013.01)

Citation (search report)

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