

Title (en)

Turbine blade having internal cooling passage

Title (de)

Turbinenschaufel mit innerem Kühlkanal

Title (fr)

Aube de turbine ayant un passage interne de refroidissement

Publication

EP 1849960 A2 20071031 (EN)

Application

EP 07008241 A 20070423

Priority

JP 2006122884 A 20060427

Abstract (en)

A turbine blade can be provided which enhances efficiency of a gas turbine by being efficiently cooled and has a high degree of reliability. The turbine blade includes an internal cooling passage (4,5,7a-7f), and a plurality of projections (16) on a blade ventral side wall surface and a rear side wall surface of the cooling passage on a blade trailing edge side (13) thereof or a plurality of portions (e.g., cylindrical pin fins extending from the blade trailing edge side (13) ventral side wall surface to the blade trailing edge side rear side wall surface) connecting the blade ventral side wall surface with the rear side wall surface. The projections (16) or the portions are arranged so as to have different passage resistances depending on a position on the wall surfaces on the blade trailing edge side. This reduces the necessary amount of the cooling medium while performing efficient cooling.

IPC 8 full level

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CPC (source: EP)

F01D 5/187 (2013.01); **F01D 5/20** (2013.01); **F01D 9/041** (2013.01); **F05D 2260/2212** (2013.01); **F05D 2260/22141** (2013.01)

Cited by

CN107366555A; US11313238B2; US2016333699A1; EP3099901A4; EP2602439A1; CN104791019A; WO2015116338A1; US10208604B2; US8182225B2; WO2013076109A1; WO2009109462A1

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