

Title (en)

System for cooling the trailing edge of a hollow gasturbine blade

Title (de)

Kühlsystem für den Hinterkantenbereich einer hohlen Gasturbinenschaufel

Title (fr)

Système de refroidissement pour le bord de fuite des aubes creuses d'une turbine à gaz

Publication

EP 0892150 B1 20030205 (DE)

Application

EP 97810475 A 19970714

Priority

EP 97810475 A 19970714

Abstract (en)

[origin: EP0892150A1] The arrangement comprises internal cooling fins (8), which run from the web (9) across the flanks, to the trailing edge (5). On the high-pressure flank (7) the fins are inclined radially outwards from the web to the trailing edge. On the low pressure flank (6) the fins are inclined radially inwards from the web to the trailing edge, and on each flank, the fins are approximately parallel. The fin height increases from zero at the flank/web intersection to a height, which varies along its length, to zero at the trailing edge. The ratio of the local height (h) of the fin to the local width (H) of the cooling passage (3) is constant over the length of the fin. Fins nearer the blade root are taller than those further from the root. The distance between adjacent fins can vary over the length of the blade.

IPC 1-7

F01D 5/18

IPC 8 full level

F01D 5/18 (2006.01); **F01D 9/02** (2006.01)

CPC (source: EP US)

F01D 5/187 (2013.01 - EP US); **F05D 2260/2212** (2013.01 - EP US); **F05D 2260/22141** (2013.01 - EP US)

Cited by

US9388700B2; US6641362B1; EP1167690A1; WO0171164A1; WO0100965A1

Designated contracting state (EPC)

DE GB

DOCDB simple family (publication)

EP 0892150 A1 19990120; **EP 0892150 B1 20030205**; DE 59709275 D1 20030313; JP 4169834 B2 20081022; JP H1172004 A 19990316; US 6056508 A 20000502

DOCDB simple family (application)

EP 97810475 A 19970714; DE 59709275 T 19970714; JP 19751098 A 19980713; US 11177898 A 19980708