

## Title (en)

Turbine blade or vane with cooled platform

## Title (de)

Lauf- oder Leitschaufel einer Turbine mit gekühlter Plattform

## Title (fr)

Aube rotorique ou statorique de turbine à plateforme refroidie

## Publication

**EP 2093381 A1 20090826 (EN)**

## Application

**EP 08003397 A 20080225**

## Priority

EP 08003397 A 20080225

## Abstract (en)

The present invention relates to a turbine component, in particular a vane (1) or a blade (12), comprising a platform (3), an airfoil portion (2) extending outwardly from said platform (3) and a shank portion (5) extending inwardly from said platform (3), whereby said platform (3) comprising an end zone (10) forming an platform trailing edge (4), whereby inwardly orientated surface of said trailing edge (4) is being ventilated by a flow (F) of a cooling medium streaming outwardly along said surface. It is an object of an invention to provide such a turbine component (1, 12), which permits enhanced cooling of the inwardly orientated surface of trailing edge (4). The problem is solved by associating said inwardly orientated surface with at least one surface enlargement element (17, 21).

## IPC 8 full level

**F01D 9/04** (2006.01); **F01D 5/18** (2006.01)

## CPC (source: EP)

**F01D 5/18** (2013.01); **F01D 9/041** (2013.01); **F01D 11/001** (2013.01); **F05D 2240/122** (2013.01); **F05D 2240/304** (2013.01); **F05D 2240/81** (2013.01); **F05D 2260/201** (2013.01); **F05D 2260/2212** (2013.01); **F05D 2260/2214** (2013.01); **F05D 2260/22141** (2013.01)

## Citation (applicant)

- EP 1512835 A2 20050309 - GEN ELECTRIC [US]
- DE 3248161 A1 19830707 - UNITED TECHNOLOGIES CORP [US]
- DE 1247072 B 19670810 - GEN MOTORS CORP
- DE 2639511 A1 19770317 - GEN ELECTRIC
- US 2007009359 A1 20070111 - CHEROLIS ANTHONY [US], et al
- US 2005135936 A1 20050623 - CHEROLIS ANTHONY [US], et al

## Citation (search report)

- [X] WO 2004038179 A1 20040506 - PRATT & WHITNEY CANADA [CA], et al
- [X] EP 1582697 A1 20051005 - UNITED TECHNOLOGIES CORP [US]
- [X] US 5954475 A 19990921 - MATSUURA MASAOKI [JP], et al
- [X] EP 1795703 A2 20070613 - GEN ELECTRIC [US]
- [X] FR 2417639 A1 19790914 - ROLLS ROYCE [GB]
- [X] GB 2244520 A 19911204 - GEN ELECTRIC [US]
- [X] DE 102006004437 A1 20061130 - MITSUBISHI HEAVY IND LTD [JP]
- [X] EP 1561900 A2 20050810 - UNITED TECHNOLOGIES CORP [US]
- [X] EP 1380726 A2 20040114 - MITSUBISHI HEAVY IND LTD [JP]
- [X] EP 1452693 A2 20040901 - GEN ELECTRIC [US]
- [A] US 5201847 A 19930413 - WHIDDEN GRAYDON L [US]
- [A] CA 2528049 A1 20060613 - PRATT & WHITNEY CANADA [CA]

## Cited by

CN102953772A; DE102013200497A1; FR3001492A1; FR3107919A1; FR3107920A1; EP3273004A1; EP3521570A1; FR3028883A1; GB2534016A; EP3101236A1; GB2534016B; EP3521571A1; WO2011029420A1; US10526917B2; US10619484B2; US10196915B2; US10287911B2; US10822987B1

## Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

## Designated extension state (EPC)

AL BA MK RS

## DOCDB simple family (publication)

**EP 2093381 A1 20090826**; WO 2009106464 A1 20090903

## DOCDB simple family (application)

**EP 08003397 A 20080225**; EP 2009051914 W 20090218