

Title (en)

BLADE FOR TURBOMACHINERY COMPRISING A SHROUD AND A WEIGHT-OPTIMISED SEALING STRIP

Title (de)

STRÖMUNGSMASCHINENSCHAUFEL MIT EINEM DECKBAND UND GEWICHTSOPTIMIERTER DICHTLEISTE

Title (fr)

AUBE DE TURBOMACHINE MUNIE D'UN ANNEAU DE RENFORCEMENT ET D'UNE BAGUETTE D'ETANCHEITE A POIDS OPTIMISE

Publication

**EP 1747349 B1 20081112 (DE)**

Application

**EP 05747436 A 20050513**

Priority

- EP 2005052198 W 20050513
- DE 102004025321 A 20040519

Abstract (en)

[origin: WO2005113941A1] The invention relates to a blade (1) for turbomachinery comprising a shroud element (14). During the operation of said machinery, plastic deformations occur under the influence of centrifugal stress, resulting in the lifting of the shroud element on one side. Said stress can cause high-temperature creep in the blade. According to the invention, a sealing strip (15), which is situated on the shroud element, is configured with a thickness that varies in the peripheral direction (U). Material is removed from the outlying areas of the periphery (21, 22), resulting in a reduction of the mass of the shroud element (14) and thus a reduction of the asymmetrical centrifugal stress and the associated lifting of the shroud element on one side.

IPC 8 full level

**F01D 5/20** (2006.01); **F01D 5/22** (2006.01)

CPC (source: EP US)

**F01D 5/225** (2013.01 - EP US); **F05D 2230/10** (2013.01 - EP US); **F05D 2240/11** (2013.01 - EP US)

Cited by

FR3077093A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**WO 2005113941 A1 20051201**; AT E414214 T1 20081115; DE 102004025321 A1 20051208; DE 502005005956 D1 20081224; EP 1747349 A1 20070131; EP 1747349 B1 20081112; US 2007104570 A1 20070510; US 7326033 B2 20080205

DOCDB simple family (application)

**EP 2005052198 W 20050513**; AT 05747436 T 20050513; DE 102004025321 A 20040519; DE 502005005956 T 20050513; EP 05747436 A 20050513; US 60075406 A 20061117