

Title (en)
ROTOR ARRANGEMENT OF A TURBINE

Title (de)
ROTORANORDNUNG VON EINER TURBINE

Title (fr)
AGENCEMENT DE ROTOR DE TURBINE

Publication
EP 2183467 B1 20151118 (DE)

Application
EP 08775236 A 20080721

Priority
• EP 2008059507 W 20080721
• CH 12582007 A 20070808

Abstract (en)
[origin: WO2009019126A1] The invention relates to a rotor arrangement of a turbine for improving the sealing between the rotor (1) and a plurality of blades (2) anchored in the rotor (1) and arranged in the shape of a circumferential ring, the rotor having a plurality of substantially axially extending profiled recesses (4) in which a ring of blades (2) having corresponding blade root profiles (16) are inserted in said recesses (4) in a form-fit and/or force-fit manner in a substantially axial insertion direction (8), and the rotor (1) having surface segments or circumferential surface segments (5, 5') extending tangentially in the axial direction (A) and the circumferential direction between the recesses (4), said segments being substantially at least indirectly covered in the radial direction by lower cover bands (7) of circumferentially adjacently located blades (2). According to the invention, at least one of the tangential surface segments or circumferential surface segments (5, 5') is provided with a step (13) in the radial direction (R) and a corresponding recess (12), connecting thereto as flush as possible, is provided in the lower side of the cover band (7) of the blade (2) located thereabove. The invention further relates to corresponding rotors and blades.

IPC 8 full level
F01D 11/00 (2006.01); **F01D 5/30** (2006.01)

CPC (source: EP US)
F01D 5/3007 (2013.01 - EP US); **F01D 11/005** (2013.01 - EP US); **F05D 2240/55** (2013.01 - EP US); **F05D 2250/13** (2013.01 - EP US); **F05D 2250/182** (2013.01 - EP US); **Y10T 29/49316** (2015.01 - EP US)

Citation (opposition)
Opponent : MTU
• US 3047268 A 19620731 - LEAVITT STANLEY L
• WO 9950534 A1 19991007 - PRATT & WHITNEY CANADA [CA]
• EP 0710766 A1 19960508 - ROLLS ROYCE PLC [GB]
• GB 1527074 A 19781004 - ROLLS ROYCE
• EP 1795706 A1 20070613 - HONEYWELL INT INC [US]
• US 3112914 A 19631203 - WELLMAN ROBERT H
• DE 3743253 A1 19890629 - MTU MUENCHEN GMBH [DE]
• "Zeichnungsblatt zur Laufscheibe", TURBINE, STUFE 1 DER MTR 390 (ZEICHNUNGSNUMMER: AH30014, 1988
• "Zeichnungsblatt zur Laufschaufel", TURBINE, STUFE 1 DER MTR 390 (ZEICHNUNGSNUMMER: AH30029, 1988

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

DOCDB simple family (publication)
WO 2009019126 A1 20090212; CA 2707510 A1 20090212; CA 2707510 C 20160927; EP 2183467 A1 20100512; EP 2183467 B1 20151118; EP 2183467 B2 20231018; JP 2010535968 A 20101125; MX 2010001538 A 20100315; US 2010166563 A1 20100701; US 9435213 B2 20160906

DOCDB simple family (application)
EP 2008059507 W 20080721; CA 2707510 A 20080721; EP 08775236 A 20080721; JP 2010519409 A 20080721; MX 2010001538 A 20080721; US 70185210 A 20100208