

Title (en)

METHOD FOR PRODUCING A BLISK OR A BLING, COMPONENT PRODUCED THEREWITH AND TURBINE BLADE

Title (de)

VERFAHREN ZUR HERSTELLUNG EINER BLISK ODER EINES BLINGS, MITTELS EINES ANGESCHWEISSTEN SCHAUFELFUSSES

Title (fr)

PROCÉDÉ DE PRODUCTION DE BLISK OU DE BLING, ÉLÉMENT AINSI OBTENU ET AUBE DE TURBINE

Publication

EP 2198128 A1 20100623 (DE)

Application

EP 08839201 A 20081010

Priority

- DE 2008001667 W 20081010
- DE 102007050142 A 20071019

Abstract (en)

[origin: CA2702435A1] The invention relates to a method for producing a blisk (bladed disk) or a bling (bladed ring) of a gas turbine, said method comprising the following steps: a) producing a turbine blade (10) by joining a blade (12) to an adapter element (16), consisting of a metal material that is suitable for fusion welding, said adapter element (16) being used to form a blade root of the turbine wheel (10), and b) joining the turbine wheel (10) to a rotor disk (22), consisting of a metal material that is suitable for fusion welding, or to a rotor ring, consisting of a metal material that is suitable for fusion welding, in such a manner that the turbine wheel (10) is arranged on the outer periphery (26) of the rotor disk (22) or of the rotor ring. The invention further relates to a component of a gas turbine or of a high-pressure or low-pressure compressor, especially to a blisk (bladed disk) or bling (bladed ring). According to the invention, the component (30) consists of separately produced turbine blades (10) or of an annular blade ring (28), separately produced from the turbine blades (10), and a rotor disk (22) connected thereto and consisting of a metal material that is suitable for fusion welding, or a rotor ring connected thereto and consisting of a metal material that is suitable for fusion welding, the turbine blades (10) or the blade ring (28) being arranged on the outer periphery (26) of the rotor disk (22) or of the rotor ring and the turbine blades (10) consisting of respective blades (12) and adapter elements (16), consisting of a metal material that is suitable for fusion welding, fastened thereto, and the adapter element (16) being configured to form a blade root of the turbine blade (10). The invention also relates to a novel turbine blade.

IPC 8 full level

F01D 5/30 (2006.01); **B23P 15/00** (2006.01); **B23P 15/04** (2006.01); **F01D 5/34** (2006.01)

CPC (source: EP US)

B23K 15/0046 (2013.01 - EP US); **B23P 15/006** (2013.01 - EP US); **F01D 5/3061** (2013.01 - EP US); **F01D 5/34** (2013.01 - EP US); **B23K 2101/001** (2018.07 - EP US); **Y10T 29/49336** (2015.01 - EP US)

Citation (search report)

See references of WO 2009049596A1

Cited by

DE102010051534A1

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)

DE 102007050142 A1 20090423; CA 2702435 A1 20090423; CN 101821480 A 20100901; EP 2198128 A1 20100623; JP 2011501019 A 20110106; US 2010284817 A1 20101111; WO 2009049596 A1 20090423

DOCDB simple family (application)

DE 102007050142 A 20071019; CA 2702435 A 20081010; CN 200880111543 A 20081010; DE 2008001667 W 20081010; EP 08839201 A 20081010; JP 2010529229 A 20081010; US 73860808 A 20081010