

Title (en)

Method and device for assembling blades into a gas turbine disc by providing heat in order to create a blade pre-twist

Title (de)

Verfahren und Vorrichtung zur Montage von Schaufeln in einer Sasturbinenscheibe, wobei mittels Wärmezufuhr die Schaufel gespreizt wird

Title (fr)

Procédé et dispositif pour l'assemblage de pales dans un disque de turbine à gaz, ou une pré-torsion de pale est créée par réchauffage

Publication

EP 3070267 A1 20160921 (EN)

Application

EP 15160161 A 20150320

Priority

EP 15160161 A 20150320

Abstract (en)

An assembly method for connecting a plurality of rotor blades (51) to a rotor disc (35) of a rotary turbomachine (10) comprises the steps of: - providing heat to the pressure side (59) or to the suction side (57) of at least one blade of the plurality of blades for rotating at least a radial section (70) of the blade about a radial direction of the blade, the radial direction extending between a root and a tip of the blade, the radial section (70) being radially distanced from a the root portion (65) or from a tip portion (67) of the blade (51), - sliding the root portion (65) of the blade (51) inside a respective coupling portion (75) of the rotor disc (35). A thermal device (100) is also disclosed for providing heat to the rotor blades (51) to a rotor disc (35) of a rotary turbomachine (10), in order to promote the assembly of the rotor blades (51) into the rotor disc (35).

IPC 8 full level

F01D 5/22 (2006.01); **F01D 5/30** (2006.01); **F01D 9/04** (2006.01); **F01D 25/28** (2006.01)

CPC (source: EP)

F01D 5/225 (2013.01); **F01D 5/3007** (2013.01); **F01D 9/042** (2013.01); **F01D 25/285** (2013.01)

Citation (search report)

- [A] US 6158104 A 20001212 - ROBERTS DENNIS W [US], et al
- [A] EP 1731713 A2 20061213 - GEN ELECTRIC [US]
- [A] US 5509784 A 19960423 - CARUSO DAVID A [US], et al
- [A] US 2005249599 A1 20051110 - HEMSLEY PHILIP D [GB], et al

Cited by

CN110119553A

Designated contracting state (EPC)

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3070267 A1 20160921

DOCDB simple family (application)

EP 15160161 A 20150320