

Title (en)

TURBINE BLADE ASSEMBLY AND METHOD FOR MANUFACTURING SUCH BLADES

Title (de)

TURBINENSCHAUFELANORDNUNG UND VERFAHREN ZUM HERSTELLEN SOLCHER ANORDNUNG

Title (fr)

ENSEMBLE PALE DE TURBINE ET PROCÉDÉ DE PRODUCTION D'UNE TELLE PALE

Publication

**EP 3575556 A1 20191204 (EN)**

Application

**EP 18175544 A 20180601**

Priority

EP 18175544 A 20180601

Abstract (en)

A turbine blade assembly (200) for turbo-machines including a blade body (202) including a free end (204) and a joint end (206), the blade body (202) comprising an airfoil section along at least one side of the blade body extending from the joint end to the free end. Further, the turbine blade assembly includes a blade platform at the joint end (206) of the blade body, suitable to abut a disc of a turbo-machine; and a blade root (220) that extends from the blade platform towards the disc (216), the blade root (220) comprising a plurality of lugs (222a-222d) and a plurality of fillets (224a-224c). The turbine blade assembly characterised in that the blade root (220) comprise a stress reducing structure (210a, 210b) including at least one slot (230, 235) having one of a continuous and discontinuous profile capable of countering stress at the plurality of fillets (224a-224c).

IPC 8 full level

**F01D 5/30** (2006.01)

CPC (source: EP)

**F01D 5/3007** (2013.01); **F05D 2260/941** (2013.01)

Citation (applicant)

"Turbine blade fir-tree root design optimization using intelligent CAD and finite element analysis", COMPUTERS & STRUCTURES, 2002, pages 1853 - 1867

Citation (search report)

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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)

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