

Title (en)
METHOD AND DEVICE FOR MANUFACTURING A DUAL-MATERIAL TURBINE ENGINE DISC AND DISC PRODUCED USING SAID METHOD

Title (de)
VERFAHREN UND VORRICHTUNG ZUR HERSTELLUNG EINER ZWEIMATERIALTURBINENMOTORSCHLEIBE UND MIT DIESEM VERFAHREN HERGESTELLTE SCHLEIBE

Title (fr)
PROCÉDÉ ET DISPOSITIF DE FABRICATION D'UN DISQUE DE TURBOMACHINE BI-MATIÈRE ET DISQUE OBTENU PAR CE PROCÉDÉ

Publication
EP 4251855 A1 20231004 (FR)

Application
EP 21820670 A 20211116

Priority
• FR 2012106 A 20201125
• FR 2021052022 W 20211116

Abstract (en)
[origin: WO2022112684A1] One aspect of the invention relates to a method for manufacturing a dual-material turbine engine disc, comprising the following operations: providing a rough bore made of a first material, mounting the rough bore about an axis of rotation of a rotating device, rotating the rough bore, spraying a second material under solidification conditions, thereby generating a column-like or monocrystalline microstructure, which is different from the first material, on an outer surface of the rough bore in order to produce a dual-material part, and machining the dual-material part to produce a turbine engine disc. A second aspect of the invention relates to a device for implementing said method. A third aspect of the invention relates to a turbine engine disc produced using said method.

IPC 8 full level
F01D 5/02 (2006.01); **B22D 27/04** (2006.01); **F01D 5/34** (2006.01)

CPC (source: EP US)
C23C 4/08 (2013.01 - US); **C23C 4/12** (2013.01 - US); **C23C 4/18** (2013.01 - US); **F01D 5/02** (2013.01 - EP US); **F01D 5/34** (2013.01 - EP US); **F05D 2220/32** (2013.01 - US); **F05D 2230/10** (2013.01 - EP); **F05D 2230/20** (2013.01 - EP); **F05D 2230/22** (2013.01 - EP); **F05D 2230/30** (2013.01 - US); **F05D 2230/313** (2013.01 - EP); **F05D 2240/30** (2013.01 - US); **F05D 2300/175** (2013.01 - EP); **F05D 2300/177** (2013.01 - EP)

Citation (search report)
See references of WO 2022112684A1

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

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
FR 3116561 A1 20220527; **FR 3116561 B1 20230922**; CN 116490674 A 20230725; EP 4251855 A1 20231004; US 2024003257 A1 20240104; WO 2022112684 A1 20220602

DOCDB simple family (application)
FR 2012106 A 20201125; CN 202180079199 A 20211116; EP 21820670 A 20211116; FR 2021052022 W 20211116; US 202118253510 A 20211116