

Title (en)

MOULD FOR MANUFACTURING A SINGLE-CRYSTAL BLADE BY CASTING, INSTALLATION AND METHOD OF MANUFACTURE IMPLEMENTING SAME

Title (de)

GUSSFORM ZUR HERSTELLUNG EINER MONOKRISTALLINEN KLINGE DURCH GIESSEN, ANLAGE UND VERFAHREN ZUR HERSTELLUNG DAMIT

Title (fr)

MOULE POUR LA FABRICATION D'UNE AUBE MONOCRISTALLINE PAR FONDERIE, INSTALLATION ET PROCÉDÉ DE FABRICATION LE METTANT EN UVRE

Publication

EP 3463714 B1 20210929 (FR)

Application

EP 17733496 A 20170601

Priority

- FR 1655021 A 20160602
- FR 2017051371 W 20170601

Abstract (en)

[origin: WO2017207933A1] The invention relates to a mould (3) made of a ceramic material intended to be used to mould a turbomachine blade from a molten metal, the blade comprising a base, a platform, a vane, and a root; the mould comprising: a cavity (4) having the shape of the blade, and an auxiliary grain duct (5) comprising a first portion (51) and a second portion (52) extending the first portion, said first portion leading, at one end (511), into a first part (40) of the cavity forming the base of the blade and, at another end (512), into a second part (412) of the cavity forming a spoiler of the blade platform, said second portion (52) leading, at one end (521), into said second part (412) of the cavity and, at another end, (522) into a third part (432) of the cavity forming a spoiler of the blade root. The invention also aims for an installation and a method of manufacture implementing such a mould.

IPC 8 full level

B22C 9/04 (2006.01)

CPC (source: EP RU US)

B22C 9/04 (2013.01 - EP RU US); **B22C 9/22** (2013.01 - EP US); **B22D 27/04** (2013.01 - RU); **B22D 27/045** (2013.01 - EP US)

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

DOCDB simple family (publication)

WO 2017207933 A1 20171207; BR 112018074832 A2 20190306; BR 112018074832 B1 20220802; CA 3025331 A1 20171207; CA 3025331 C 20231003; CN 109219489 A 20190115; CN 109219489 B 20201030; EP 3463714 A1 20190410; EP 3463714 B1 20210929; FR 3052088 A1 20171208; FR 3052088 B1 20180622; RU 2018146438 A 20200710; RU 2018146438 A3 20200710; RU 2730827 C2 20200826; US 10576535 B2 20200303; US 2019337048 A1 20191107

DOCDB simple family (application)

FR 2017051371 W 20170601; BR 112018074832 A 20170601; CA 3025331 A 20170601; CN 201780033664 A 20170601; EP 17733496 A 20170601; FR 1655021 A 20160602; RU 2018146438 A 20170601; US 201716305326 A 20170601