

Title (en)

METHOD FOR PRODUCING A PIECE MADE FROM A SUPERALLOY BASED ON NICKEL AND CORRESPONDING PIECE

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES TEILS AUS EINER SUPERLEGIERUNG AUF BASIS VON NICKEL UND ENTSPRECHENDES TEIL

Title (fr)

PROCEDE DE FABRICATION D'UNE PIECE EN SUPERALLIAGE A BASE DE NICKEL, ET PIECE AINSI OBTENUE

Publication

EP 2393951 A2 20111214 (FR)

Application

EP 10708291 A 20100205

Priority

- FR 2010050191 W 20100205
- FR 0950767 A 20090206

Abstract (en)

[origin: WO2010089516A2] The invention relates to a method for producing a blank for a piece made from a superalloy based on Ni, wherein an alloy is produced and thermal treatments are carried out, characterised in that: said superalloy contains at least 2.5% of the total as Nb and Ta, a thermal treatment is carried out in a number of steps, a first step between 850 and 1,000°C for at least 20 minutes to precipitate the phase δ on the grain joints, a second step at a temperature above that of the first step, permitting a partial dissolution of the phase δ obtained in the first step, an aging treatment comprising a third step and optionally one or more supplementary steps at a temperature lower than that of the first step and which permit a precipitation of the hardening phases γ' and γ''. The invention further relates to a corresponding piece.

IPC 8 full level

C22C 19/03 (2006.01); **C22C 19/05** (2006.01); **C22F 1/10** (2006.01)

CPC (source: EP US)

C22C 19/03 (2013.01 - EP US); **C22C 19/055** (2013.01 - EP US); **C22F 1/10** (2013.01 - EP US)

Citation (search report)

See references of WO 2010089516A2

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 MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)

WO 2010089516 A2 20100812; **WO 2010089516 A3 20101021**; BR PI1005418 A2 20160308; CA 2751681 A1 20100812; CN 102439191 A 20120502; CN 102439191 B 20150128; EP 2393951 A2 20111214; EP 2393951 B1 20210616; FR 2941962 A1 20100813; FR 2941962 B1 20130531; JP 2012517524 A 20120802; PL 2393951 T3 20211004; RU 2011136846 A 20130320; RU 2531217 C2 20141020; US 2012037280 A1 20120216

DOCDB simple family (application)

FR 2010050191 W 20100205; BR PI1005418 A 20100205; CA 2751681 A 20100205; CN 201080015088 A 20100205; EP 10708291 A 20100205; FR 0950767 A 20090206; JP 2011548756 A 20100205; PL 10708291 T 20100205; RU 2011136846 A 20100205; US 201013148298 A 20100205