

Title (en)

HOT FORGING DIE AND HOT FORGING METHOD

Title (de)

WARMSCHMIEDEGESENK UND WARMSCHMIEDEVERFAHREN

Title (fr)

MATRICE DE FORGEAGE À CHAUD ET PROCÉDÉ DE FORGEAGE À CHAUD

Publication

EP 3281720 A1 20180214 (EN)

Application

EP 16776475 A 20160331

Priority

- JP 2015077338 A 20150406
- JP 2016060733 W 20160331

Abstract (en)

Provided are a hot forging die and a hot forging method which enables to perform even a difficult-to-work material used for a turbine blade can be easily swaged using a radial forging machine. The hot forging die for hot-forging a rod shaped forging material by radial forging includes a pair of halved pressing portions between which the forging material is interposed, each of the halved pressing portions having a smooth surface having a concave shape configured to surround the forging material, wherein the halved pressing portion includes a rough processing portion and a finishing portion, and a width of the finishing portion in a longitudinal direction of the forging material is wider than a width of the rough processing portion.

IPC 8 full level

B21J 13/02 (2006.01); **B21J 5/00** (2006.01); **B21K 3/04** (2006.01)

CPC (source: EP)

B21J 1/04 (2013.01); **B21J 7/14** (2013.01); **B21J 9/06** (2013.01); **B21J 13/02** (2013.01); **B21K 3/04** (2013.01)

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 3281720 A1 20180214; EP 3281720 A4 20181219; EP 3281720 B1 20200902; ES 2832499 T3 20210610; JP 6108259 B2 20170405; JP WO2016163308 A1 20170525; WO 2016163308 A1 20161013

DOCDB simple family (application)

EP 16776475 A 20160331; ES 16776475 T 20160331; JP 2016060733 W 20160331; JP 2016575698 A 20160331