

Title (en)

METHOD FOR INCREASING THE PLASTIC DEFORMABILITY OF A WORKPIECE USING AN ABSORPTION AGENT

Title (de)

VERFAHREN ZUM ERHÖHEN DER PLASTISCHEN VERFORMBARKEIT EINES WERKSTÜCKES MIT EINEM ABSORPTIONSMITTEL

Title (fr)

PROCÉDÉ POUR AUGMENTER L'APTITUDE À LA DÉFORMATION PLASTIQUE D'UNE PIÈCE À L'AIDE D'UN AGENT D'ABSORPTION

Publication

EP 3445886 B1 20220810 (DE)

Application

EP 17720414 A 20170421

Priority

- DE 102016206899 A 20160422
- EP 2017059517 W 20170421

Abstract (en)

[origin: WO2017182629A1] The invention relates to a method for at least locally increasing the plastic deformability of a metal workpiece (5), which has an aluminum alloy in particular. The workpiece (5) is supplied with a radiation in order to increase the temperature of the workpiece. The invention also relates to a corresponding manufacturing device. The aim of the invention is to allow a higher and faster heating of specific regions of a metal workpiece in a controlled manner compared to other regions, wherein a higher and faster heating is to be achieved using the same radiation power while the surface of the workpiece is to be influenced as little as possible. This is achieved in that an absorption agent (10) is applied at least locally onto the workpiece (5) prior to supplying the workpiece (5) with the radiation. The degree of absorption of the absorption agent (10) for the radiation is higher than the degree of absorption of the workpiece (5) for the radiation.

IPC 8 full level

C22F 1/00 (2006.01); **B05D 3/00** (2006.01); **B05D 5/00** (2006.01); **C21D 1/34** (2006.01); **C22F 1/04** (2006.01)

CPC (source: EP US)

B21D 37/16 (2013.01 - US); **C21D 1/34** (2013.01 - EP US); **C21D 1/68** (2013.01 - EP US); **C22F 1/00** (2013.01 - EP US); **C22F 1/04** (2013.01 - EP US); **F27D 11/12** (2013.01 - EP US); **C21D 2221/00** (2013.01 - EP US); **F27D 2099/0028** (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 2017182629 A1 20171026; CA 3021723 A1 20171026; CN 109477193 A 20190315; DE 102016206899 A1 20171026; EP 3445886 A1 20190227; EP 3445886 B1 20220810; US 11400507 B2 20220802; US 2019134692 A1 20190509

DOCDB simple family (application)

EP 2017059517 W 20170421; CA 3021723 A 20170421; CN 201780032840 A 20170421; DE 102016206899 A 20160422; EP 17720414 A 20170421; US 201716095425 A 20170421