

Title (en)

METHOD OF HEAT TREATING A METALLIC COMPONENT

Title (de)

VERFAHREN ZUR WÄRMEBEHANDLUNG EINES METALLISCHEN BAUTEILS

Title (fr)

PROCÉDÉ DE TRAITEMENT THERMIQUE D'UN COMPOSANT MÉTALLIQUE

Publication

EP 3408420 B1 20240626 (DE)

Application

EP 17703343 A 20170125

Priority

- DE 102016201024 A 20160125
- DE 102016201025 A 20160125
- DE 102016201936 A 20160209
- DE 102016202766 A 20160223
- DE 102016118253 A 20160927
- EP 2017051508 W 20170125

Abstract (en)

[origin: WO2017129600A1] The invention relates to a method for heat-treating a metal component. The invention relates in particular to an application in the partial hardening of optionally pre-coated components made of high-strength manganese-boron steel. With the method, at least one first sub-region (2) of the component (1) is convectively cooled by means of at least one nozzle (3), which discharges a fluid stream (4) to the first sub-region (2) so that a temperature difference (5) of at least 100 K is set between the at least one first sub-region (2) and at least one second sub-region (6) of the component (1), wherein the at least one nozzle (3) is operated with an overpressure of at least 2 bar.

IPC 8 full level

C21D 9/00 (2006.01); **C21D 1/19** (2006.01); **C21D 1/667** (2006.01); **C21D 1/673** (2006.01); **C21D 1/84** (2006.01); **C21D 9/46** (2006.01)

CPC (source: EP US)

C21D 1/19 (2013.01 - EP US); **C21D 1/667** (2013.01 - EP US); **C21D 1/673** (2013.01 - EP US); **C21D 1/84** (2013.01 - EP US); **C21D 9/0062** (2013.01 - EP US); **C21D 9/46** (2013.01 - EP US); **C21D 2211/001** (2013.01 - EP US); **C21D 2221/00** (2013.01 - EP US)

Citation (examination)

US 2003189027 A1 20031009 - GARCIA GOMEZ RAFAEL [DE]

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 2017129600 A1 20170803; CN 109072330 A 20181221; EP 3408420 A1 20181205; EP 3408420 B1 20240626; US 2019024203 A1 20190124

DOCDB simple family (application)

EP 2017051508 W 20170125; CN 201780008164 A 20170125; EP 17703343 A 20170125; US 201716072633 A 20170125