

Title (en)

METHOD AND DEVICE FOR ENERGY-EFFICIENT HOT FORMING

Title (de)

VERFAHREN UND VORRICHTUNG ZUM ENERGIEEFFIZIENTEN WARMUMFORMEN

Title (fr)

PROCÉDÉ ET DISPOSITIF DE FORMAGE À CHAUD ÉCONERGÉTIQUE

Publication

EP 2456896 A1 20120530 (DE)

Application

EP 10737825 A 20100713

Priority

- DE 102009026251 A 20090724
- EP 2010060052 W 20100713

Abstract (en)

[origin: WO2011009769A1] The invention relates to a method for hot forming steel parts, particularly blanks or semi-finished products made of steel, wherein the steel parts are heated in a furnace to a temperature above the Acl temperature to at least partially austenitize and are hot-formed in a forming tool. The aim of providing a method for hot forming steel parts, which makes it possible to carry out the hot forming operation in an energy-efficient manner and at the same time reduces the cycle times for producing a hot-formed component, is achieved by using the waste heat of the furnace for other heat treatment steps of the steel part and/or after the at least partial austenitizing of the steel part.

IPC 8 full level

C21D 1/25 (2006.01); **B21D 24/00** (2006.01); **C21D 1/673** (2006.01); **C21D 9/00** (2006.01); **C21D 9/48** (2006.01)

CPC (source: EP US)

B21D 22/208 (2013.01 - EP US); **B21D 22/22** (2013.01 - EP US); **B21D 24/005** (2013.01 - EP US); **B21D 37/16** (2013.01 - EP US); **C21D 1/25** (2013.01 - EP US); **C21D 1/673** (2013.01 - EP US); **C21D 9/0006** (2013.01 - EP US); **C21D 9/0062** (2013.01 - EP US); **C21D 9/48** (2013.01 - EP US); **C21D 2221/00** (2013.01 - EP US)

Citation (search report)

See references of WO 2011009769A1

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 SE SI SK SM TR

DOCDB simple family (publication)

WO 2011009769 A1 20110127; **WO 2011009769 A9 20110616**; CN 102482725 A 20120530; DE 102009026251 A1 20110203; EP 2456896 A1 20120530; US 2012152410 A1 20120621

DOCDB simple family (application)

EP 2010060052 W 20100713; CN 201080033106 A 20100713; DE 102009026251 A 20090724; EP 10737825 A 20100713; US 201213357138 A 20120124