

Title (en)
METHOD FOR MANUFACTURING HOT PRESS FORMING PART

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES HEISSPRESSFORMTEILS

Title (fr)
PROCÉDÉ DE FABRICATION D'UN ARTICLE MOULÉ À LA PRESSE À CHAUD

Publication
EP 3135394 B1 20180131 (EN)

Application
EP 15783938 A 20150226

Priority
• JP 2014088848 A 20140423
• JP 2014179073 A 20140903
• JP 2015056439 W 20150226

Abstract (en)
[origin: EP3135394A1] In manufacturing a hot press forming part by hot pressing, using a tool of press forming, a coated steel sheet that is obtained by forming a Zn-Ni coating layer on a surface of a steel sheet, the tool of press forming having a die, a blank holder, and a punch, edges of the coated steel sheet heated to a temperature range of Ac 3 transformation temperature to 1000 °C are cooled with the edges squeezed between the die and the blank holder to a temperature of 550 °C or lower and 400 °C or higher at a cooling rate of 100 °C/s or higher, press forming is performed so that the press forming is started when the edges reach a temperature of 550 °C or lower and 400 °C or higher, and after the press forming, a formed body is quenched with the formed body held at the press bottom dead center while being squeezed by the tool of press forming.

IPC 8 full level
B21D 22/20 (2006.01); **B21D 24/04** (2006.01)

CPC (source: EP KR US)
B21D 22/022 (2013.01 - EP US); **B21D 22/20** (2013.01 - EP US); **B21D 22/208** (2013.01 - EP KR US); **B21D 24/04** (2013.01 - EP US); **B21D 37/16** (2013.01 - EP KR US); **C23C 2/06** (2013.01 - KR); **C25D 3/565** (2013.01 - KR)

Cited by
EP3181717A4; EP3199257A4; US10207306B2; WO2019104601A1

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)
EP 3135394 A1 20170301; **EP 3135394 A4 20170426**; **EP 3135394 B1 20180131**; CN 106232254 A 20161214; CN 106232254 B 20190301; JP 2015213958 A 20151203; JP 5825413 B1 20151202; KR 101879307 B1 20180717; KR 20160130831 A 20161114; MX 2016013666 A 20170123; US 2017043386 A1 20170216; WO 2015163016 A1 20151029; WO 2015163016 A8 20160818

DOCDB simple family (application)
EP 15783938 A 20150226; CN 201580020980 A 20150226; JP 2014179073 A 20140903; JP 2015056439 W 20150226; KR 20167027754 A 20150226; MX 2016013666 A 20150226; US 201515305552 A 20150226