

Title (en)
HOT STAMP MOLDED ARTICLE

Title (de)
HEISSPRÄGEGEFORMTER GEGENSTAND

Title (fr)
ARTICLE MOULÉ ESTAMPÉ À CHAUD

Publication
EP 4105343 A1 20221221 (EN)

Application
EP 21752921 A 20210212

Priority
• JP 2020022634 A 20200213
• JP 2020022635 A 20200213
• JP 2021005226 W 20210212

Abstract (en)
This hot-stamping formed article includes a steel sheet, all or part of the steel sheet has a predetermined chemical composition, at a 1/4 depth position of a sheet thickness from a surface of the steel sheet, a microstructure contains, by vol%, more than 90.0% of martensite, the average value of Vickers hardness in a region that is 0.3 mm in a sheet thickness direction and 0.6 mm in a direction orthogonal to the sheet thickness direction is 670 or more, the standard deviation of the Vickers hardness in the region is 20 or less, and the tensile strength is 2300 MPa or more.

IPC 8 full level
C21D 9/00 (2006.01); **C21D 1/18** (2006.01); **C21D 9/46** (2006.01); **C22C 38/00** (2006.01); **C22C 38/54** (2006.01); **C23C 2/06** (2006.01)

CPC (source: EP KR US)
B21D 22/022 (2013.01 - KR US); **C21D 1/18** (2013.01 - EP KR); **C21D 1/26** (2013.01 - EP); **C21D 1/673** (2013.01 - EP); **C21D 7/13** (2013.01 - EP); **C21D 8/0205** (2013.01 - EP); **C21D 8/0226** (2013.01 - EP); **C21D 8/0236** (2013.01 - EP); **C21D 8/0273** (2013.01 - EP); **C21D 9/46** (2013.01 - EP KR); **C22C 38/001** (2013.01 - KR US); **C22C 38/002** (2013.01 - EP US); **C22C 38/005** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - EP US); **C22C 38/08** (2013.01 - EP US); **C22C 38/12** (2013.01 - EP US); **C22C 38/14** (2013.01 - EP US); **C22C 38/16** (2013.01 - EP); **C22C 38/20** (2013.01 - US); **C22C 38/22** (2013.01 - EP US); **C22C 38/26** (2013.01 - EP US); **C22C 38/28** (2013.01 - EP US); **C22C 38/32** (2013.01 - EP US); **C22C 38/34** (2013.01 - KR); **C22C 38/42** (2013.01 - KR); **C22C 38/44** (2013.01 - KR); **C22C 38/54** (2013.01 - KR); **C23C 2/02** (2013.01 - EP); **C23C 2/06** (2013.01 - EP KR); **C23C 2/12** (2013.01 - EP); **C23C 2/28** (2013.01 - EP); **C23C 2/40** (2013.01 - EP); **B21D 22/022** (2013.01 - EP); **C21D 2211/008** (2013.01 - EP KR)

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

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4105343 A1 20221221; **EP 4105343 A4 20230315**; CN 115087755 A 20220920; CN 115087755 B 20230818; JP WO2021162084 A1 20210819; KR 20220124789 A 20220914; MX 2022009710 A 20220909; US 2023078690 A1 20230316; WO 2021162084 A1 20210819

DOCDB simple family (application)
EP 21752921 A 20210212; CN 202180013874 A 20210212; JP 2021005226 W 20210212; JP 2022500466 A 20210212; KR 20227027510 A 20210212; MX 2022009710 A 20210212; US 202117795741 A 20210212