

Title (en)
HOT STAMP MOLDED ARTICLE

Title (de)
HEISSPRÄGEGEFORMTER GEGENSTAND

Title (fr)
ARTICLE MOULÉ ESTAMPÉ À CHAUD

Publication
EP 4105343 A4 20230315 (EN)

Application
EP 21752921 A 20210212

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

Abstract (en)
[origin: EP4105343A1] 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);
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C21D 2211/008 (2013.01 - EP KR)

Citation (search report)
• [E] EP 3943623 A1 20220126 - NIPPON STEEL CORP [JP]
• [A] EP 3584341 A1 20191225 - NIPPON STEEL CORP [JP]
• [A] AUTORENKOLLEKTIV: "Spurenelemente im Stahl - Moeglichkeiten zur Beeinflussung im Smelzbetrieb", SPURENELEMENTE IN STAEBLEN, VERLAG STAHEISEN, DUESSELDORF, DE, 1 January 1985 (1985-01-01), pages 19 - 22, XP002433212

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Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

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