

Title (en)

STEEL SHEET FOR HOT STAMPING AND HOT STAMPING MOLDED BODY

Title (de)

STAHLBLECH FÜR HEISSPRÄGUNG UND HEISSPRÄGUNG EINES FORMKÖRPERS

Title (fr)

TÔLE D'ACIER POUR ESTAMPAGE À CHAUD, ET CORPS MOULÉ PAR ESTAMPAGE À CHAUD

Publication

EP 4286544 A1 20231206 (EN)

Application

EP 22807432 A 20220509

Priority

- JP 2021081620 A 20210513
- JP 2022019656 W 20220509

Abstract (en)

This steel sheet for hot stamping has a predetermined chemical composition and has a microstructure in which $S_{\alpha} + S_{GB}$ sub>, which is a total of an area ratio S_{α} of ferrite and an area ratio S_{GB} of a granular bainite, is 10% or more and less than 50% and S_{GB}/S_{α} , which is a ratio between the area ratio S_{GB} of the granular bainite and the area ratio S_{α} of the ferrite, is 0.30 to 0.70. In addition, a hot-stamping formed body manufactured using this steel sheet for hot stamping has a predetermined chemical composition and a microstructure in which an average grain size of prior austenite grains is 5 to 25 μm , and a standard deviation of grain sizes of the prior austenite grains is 0.1 to 2.0 μm , and a tensile strength of the hot-stamping formed body is 2,200 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 38/60** (2006.01)

CPC (source: EP KR US)

C21D 1/02 (2013.01 - EP); **C21D 1/18** (2013.01 - EP KR); **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 9/46** (2013.01 - EP KR US); **C22C 38/001** (2013.01 - KR); **C22C 38/005** (2013.01 - EP); **C22C 38/008** (2013.01 - EP KR); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP); **C22C 38/06** (2013.01 - EP US); **C22C 38/22** (2013.01 - EP); **C22C 38/26** (2013.01 - EP); **C22C 38/28** (2013.01 - EP); **C22C 38/30** (2013.01 - EP); **C22C 38/32** (2013.01 - EP); **C22C 38/38** (2013.01 - EP US); **C22C 38/42** (2013.01 - KR); **C22C 38/44** (2013.01 - KR); **C22C 38/46** (2013.01 - KR); **C22C 38/48** (2013.01 - EP KR); **C22C 38/50** (2013.01 - EP KR); **C22C 38/52** (2013.01 - KR); **C22C 38/54** (2013.01 - EP KR); **C22C 38/58** (2013.01 - EP KR); **C22C 38/60** (2013.01 - EP); **C21D 2211/001** (2013.01 - KR US); **C21D 2211/002** (2013.01 - EP KR US); **C21D 2211/005** (2013.01 - EP KR US)

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

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DOCDB simple family (application)

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