

Title (en)

STEEL SHEET FOR HOT FORMING, HOT-FORMED MEMBER, AND METHOD FOR MANUFACTURING SAME

Title (de)

STAHLBLECH ZUM WARMFORMEN, WARMGEFORMTES TEIL UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

TÔLE D'ACIER POUR FORMAGE À CHAUD, ÉLÉMENT FORMÉ À CHAUD ET SON PROCÉDÉ DE FABRICATION

Publication

EP 4008800 A1 20220608 (EN)

Application

EP 20860644 A 20200901

Priority

- KR 20190108827 A 20190903
- KR 2020011684 W 20200901

Abstract (en)

Disclosed are a high-strength and non-plated steel sheet which is for hot forming and may be suitable for use in automotive structural members that require collision resistance characteristics, a hot-formed member, and a method for manufacturing same. A steel sheet for hot forming and a hot-formed member according to an embodiment of the present disclosure contain, in percent by weight (wt%), 0.05 to 0.3% of carbon (C), 0.5 to 3.0% of silicon (Si), 0.1 to 2.0% of manganese (Mn), 3.0 to 9.0% of chromium (Cr), more than 0% and less than 0.2% of nitrogen (N), and 0.03 to 1.0% of niobium (Nb), with the remainder comprising iron (Fe) and inevitable impurities.

IPC 8 full level

C22C 38/34 (2006.01); **C21D 8/02** (2006.01); **C22C 38/00** (2006.01); **C22C 38/26** (2006.01); **C22C 38/38** (2006.01)

CPC (source: CN EP KR US)

C21D 1/26 (2013.01 - EP); **C21D 1/673** (2013.01 - EP); **C21D 6/002** (2013.01 - EP); **C21D 6/004** (2013.01 - EP US); **C21D 6/005** (2013.01 - US);
C21D 6/008 (2013.01 - US); **C21D 6/02** (2013.01 - EP); **C21D 7/13** (2013.01 - EP); **C21D 8/0205** (2013.01 - CN EP US);
C21D 8/0226 (2013.01 - CN EP KR US); **C21D 8/0236** (2013.01 - CN EP US); **C21D 8/0247** (2013.01 - CN EP); **C21D 8/0263** (2013.01 - EP US);
C21D 8/0273 (2013.01 - EP); **C21D 9/46** (2013.01 - EP US); **C22C 38/001** (2013.01 - CN EP US); **C22C 38/002** (2013.01 - US);
C22C 38/02 (2013.01 - CN EP US); **C22C 38/04** (2013.01 - CN EP US); **C22C 38/06** (2013.01 - US); **C22C 38/26** (2013.01 - EP KR);
C22C 38/34 (2013.01 - CN EP KR); **C22C 38/38** (2013.01 - CN EP); **C22C 38/48** (2013.01 - EP US); **C22C 38/54** (2013.01 - US);
C22C 38/58 (2013.01 - EP); **C22C 38/60** (2013.01 - US); **B21D 22/022** (2013.01 - EP); **C21D 2211/004** (2013.01 - CN US);
C21D 2211/005 (2013.01 - CN EP US)

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

DOCDB simple family (publication)

EP 4008800 A1 20220608; EP 4008800 A4 20221130; CN 114391049 A 20220422; CN 114391049 B 20230303; JP 2022546124 A 20221102;
JP 7461464 B2 20240403; KR 102279900 B1 20210722; KR 20210027841 A 20210311; US 2022298595 A1 20220922;
WO 2021045476 A1 20210311

DOCDB simple family (application)

EP 20860644 A 20200901; CN 202080061905 A 20200901; JP 2022513945 A 20200901; KR 20190108827 A 20190903;
KR 2020011684 W 20200901; US 202017639414 A 20200901