

Title (en)

HIGH-STRENGTH STEEL SHEET HAVING SUPERIOR WORKABILITY, AND MANUFACTURING METHOD THEREFOR

Title (de)

HOCHFESTES STAHLBLECH MIT HOHER BEARBEITBARKEIT UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

TÔLE D'ACIER À HAUTE RÉSISTANCE AYANT UNE APTITUDE AU FAÇONNAGE SUPÉRIEURE, ET SON PROCÉDÉ DE FABRICATION

Publication

**EP 4079902 A4 20230816 (EN)**

Application

**EP 20903825 A 20201125**

Priority

- KR 20190169611 A 20191218
- KR 2020016838 W 20201125

Abstract (en)

[origin: EP4079902A1] The present invention relates to a steel sheet which can be used for automobile parts and the like, and relates to a steel sheet having a superior strength-ductility and strength-hole expansibility balance and superior bending workability, and a method for manufacturing same.

IPC 8 full level

**C22C 38/02** (2006.01); **B21B 3/00** (2006.01); **C21D 8/02** (2006.01); **C21D 8/04** (2006.01); **C22C 38/00** (2006.01); **C22C 38/04** (2006.01);  
**C22C 38/06** (2006.01); **C22C 38/28** (2006.01); **C22C 38/42** (2006.01); **C22C 38/44** (2006.01); **C22C 38/48** (2006.01); **C22C 38/50** (2006.01)

CPC (source: EP KR US)

**C21D 1/185** (2013.01 - EP); **C21D 1/19** (2013.01 - EP); **C21D 1/25** (2013.01 - EP); **C21D 8/0226** (2013.01 - EP KR US);  
**C21D 8/0236** (2013.01 - EP KR US); **C21D 8/0263** (2013.01 - EP KR US); **C21D 8/0273** (2013.01 - EP KR US); **C21D 9/46** (2013.01 - EP US);  
**C21D 9/68** (2013.01 - KR); **C22C 38/001** (2013.01 - KR US); **C22C 38/002** (2013.01 - US); **C22C 38/02** (2013.01 - EP KR US);  
**C22C 38/04** (2013.01 - EP KR US); **C22C 38/06** (2013.01 - EP KR US); **C22C 38/14** (2013.01 - EP); **C22C 38/28** (2013.01 - EP);  
**C22C 38/50** (2013.01 - EP); **C21D 6/005** (2013.01 - EP); **C21D 6/008** (2013.01 - EP); **C21D 8/021** (2013.01 - EP);  
**C21D 2211/001** (2013.01 - EP KR US); **C21D 2211/002** (2013.01 - EP KR US); **C21D 2211/005** (2013.01 - EP US);  
**C21D 2211/008** (2013.01 - EP KR US); **C22C 38/002** (2013.01 - EP); **C22C 38/005** (2013.01 - EP); **C22C 38/008** (2013.01 - EP);  
**C22C 38/08** (2013.01 - EP); **C22C 38/10** (2013.01 - EP); **C22C 38/12** (2013.01 - EP); **C22C 38/16** (2013.01 - EP); **C22C 38/22** (2013.01 - EP);  
**C22C 38/34** (2013.01 - EP); **C22C 38/38** (2013.01 - EP); **C22C 38/60** (2013.01 - EP)

Citation (search report)

- [XY] EP 2617849 A1 20130724 - NIPPON STEEL & SUMITOMO METAL CORP [JP]
- [YA] JP 2017053001 A 20170316 - NIPPON STEEL & SUMITOMO METAL CORP
- [A] EP 3438309 A1 20190206 - KOBE STEEL LTD [JP]
- [A] EP 3279363 A1 20180207 - KOBE STEEL LTD [JP]
- See also references of WO 2021125603A1

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 4079902 A1 20221026; EP 4079902 A4 20230816;** CN 114846166 A 20220802; JP 2023507951 A 20230228; JP 2024099676 A 20240725;  
KR 102321297 B1 20211103; KR 20210078607 A 20210629; US 2023049143 A1 20230216; WO 2021125603 A1 20210624

DOCDB simple family (application)

**EP 20903825 A 20201125;** CN 202080087053 A 20201125; JP 2022536950 A 20201125; JP 2024069102 A 20240422;  
KR 20190169611 A 20191218; KR 2020016838 W 20201125; US 202017785866 A 20201125