

Title (en)

HOT-PRESSED STEEL SHEET MEMBER AND METHOD FOR PRODUCING SAME

Title (de)

HEISSGEWALZTES STAHLBLECH UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)

ÉLÉMENT EN TÔLE D'ACIER PRESSÉE À CHAUD ET SON PROCÉDÉ DE PRODUCTION

Publication

EP 3680359 A4 20200715 (EN)

Application

EP 18876175 A 20181107

Priority

- JP 2017218301 A 20171113
- JP 2018041343 W 20181107

Abstract (en)

[origin: EP3680359A1] Disclosed is a hot-pressed steel sheet member having a tensile strength of 1780 MPa or more and excellent bending collapsibility. The hot-pressed steel sheet member has: a chemical composition containing, in mass%, C: 0.30 % or more and less than 0.50 %, Si: 0.01 % or more and 2.0 % or less, Mn: 0.5 % or more and 3.5 % or less, Nb: 0.001 % or more and 0.10 % or less, P: 0.05 % or less, S: 0.01 % or less, Al: 0.01 % or more and 1.00 % or less, and N: 0.01 % or less, with the balance being Fe and inevitable impurities, where a ratio of a C content in mass% to a Nb content in mass%, C/Nb, is from 22 to 100; a microstructure in which an average grain size of prior austenite grains is 8 μ m or less, a volume fraction of martensite is 90 % or more, and a solute C content is 25 % or less of a total C content; and a tensile strength of 1780 MPa or more.

IPC 8 full level

C22C 38/00 (2006.01); **C21D 1/18** (2006.01); **C21D 6/00** (2006.01); **C21D 9/00** (2006.01); **C21D 9/46** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/12** (2006.01); **C22C 38/58** (2006.01); **C23C 2/06** (2006.01)

CPC (source: EP KR US)

C21D 1/18 (2013.01 - EP KR); **C21D 6/005** (2013.01 - EP KR); **C21D 6/008** (2013.01 - EP KR); **C21D 8/0226** (2013.01 - KR); **C21D 8/0236** (2013.01 - KR US); **C21D 9/46** (2013.01 - EP KR US); **C22C 38/001** (2013.01 - EP KR US); **C22C 38/008** (2013.01 - US); **C22C 38/02** (2013.01 - EP KR US); **C22C 38/04** (2013.01 - EP KR US); **C22C 38/06** (2013.01 - KR US); **C22C 38/105** (2013.01 - US); **C22C 38/12** (2013.01 - EP KR US); **C22C 38/14** (2013.01 - US); **C22C 38/16** (2013.01 - US); **C22C 38/32** (2013.01 - US); **C23C 2/06** (2013.01 - EP KR US); **C23C 2/12** (2013.01 - EP KR US); **C23C 2/28** (2013.01 - EP KR US); **C23C 2/29** (2022.08 - EP US); **C23C 2/40** (2013.01 - EP KR); **C23C 30/00** (2013.01 - EP KR); **C21D 2211/001** (2013.01 - KR US); **C21D 2211/004** (2013.01 - EP KR); **C21D 2211/008** (2013.01 - EP KR US)

Citation (search report)

- [X] JP 2014118613 A 20140630 - NIPPON STEEL & SUMITOMO METAL CORP
- [I] WO 2017111456 A1 20170629 - POSCO [KR] & EP 3395994 A1 20181031 - POSCO [KR]
- [A] JP 2007211276 A 20070823 - SUMITOMO METAL IND
- See also references of WO 2019093376A1

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

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DOCDB simple family (application)

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