

Title (en)

HIGH MN STEEL SHEET AND METHOD FOR PRODUCING SAME

Title (de)

HOCHFESTES MN-STAHLEBLECH UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)

TÔLE D'ACIER À HAUTE TENEUR EN MN ET PROCÉDÉ DE PRODUCTION DE CELLE-CI

Publication

EP 3553195 A1 20191016 (EN)

Application

EP 17879107 A 20171201

Priority

- JP 2016005080 W 20161208
- JP 2017043245 W 20171201

Abstract (en)

A high-Mn steel plate and a manufacturing method therefor are provided. The high-Mn steel plate has a component composition containing, in mass %, C: 0.20 to 0.70%, Si: 0.05 to 1.0%, Mn: 15 to 30%, P: 0.028% or less, S: 0.02% or less, Al: 0.01 to 0.1%, Cr: 0.5 to 7.0%, Ni: 0.03 to 0.30%, N: 0.0010 to 0.0200%, and one or two or more of Nb: 0.003 to 0.030%, V: 0.03 to 0.10%, and Ti: 0.003 to 0.040%, with the balance being Fe and incidental impurities, where: a microstructure 0.5 mm under a surface of the steel plate includes austenite as a base phase; and 25% or more of the austenite, in area ratio, has an equivalent circle diameter of 10 μ m or more and an aspect ratio of a major axis to a minor axis of 3 or more.

IPC 8 full level

C22C 38/00 (2006.01); **C21D 6/00** (2006.01); **C21D 8/02** (2006.01); **C21D 9/46** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/12** (2006.01); **C22C 38/48** (2006.01); **C22C 38/50** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP KR)

C21D 6/005 (2013.01 - EP); **C21D 8/02** (2013.01 - KR); **C21D 8/0226** (2013.01 - EP); **C21D 8/0263** (2013.01 - EP); **C21D 9/46** (2013.01 - EP); **C22C 38/001** (2013.01 - EP); **C22C 38/02** (2013.01 - EP); **C22C 38/04** (2013.01 - EP); **C22C 38/06** (2013.01 - EP); **C22C 38/12** (2013.01 - EP); **C22C 38/48** (2013.01 - EP); **C22C 38/50** (2013.01 - EP); **C22C 38/58** (2013.01 - EP KR); **C21D 2211/001** (2013.01 - EP KR)

Cited by

EP4249621A4; US11959157B2

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 3553195 A1 20191016; **EP 3553195 A4 20191016**; **EP 3553195 B1 20210519**; BR 112019010870 A2 20191001;
BR 112019010870 B1 20230411; CN 110050082 A 20190723; CN 110050082 B 20210622; JP 6418358 B1 20181107;
JP WO2018105510 A1 20181206; KR 102309644 B1 20211006; KR 20190077470 A 20190703; KR 20210072140 A 20210616;
PH 12019501270 A1 20191216; TW 201825694 A 20180716; TW I653343 B 20190311; WO 2018104984 A1 20180614;
WO 2018105510 A1 20180614

DOCDB simple family (application)

EP 17879107 A 20171201; BR 112019010870 A 20171201; CN 201780075814 A 20171201; JP 2016005080 W 20161208;
JP 2017043245 W 20171201; JP 2018512637 A 20171201; KR 20197015408 A 20171201; KR 20217017558 A 20171201;
PH 12019501270 A 20190606; TW 106142964 A 20171207