

Title (en)

THICK STEEL SHEET AND PRODUCTION METHOD THEREFOR

Title (de)

DICKES STAHLBLECH UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

TÔLE D'ACIER ÉPAISSE ET SON PROCÉDÉ DE PRODUCTION

Publication

EP 3916112 A4 20220330 (EN)

Application

EP 20770992 A 20200225

Priority

- JP 2019045433 A 20190313
- JP 2020007377 W 20200225

Abstract (en)

[origin: EP3916112A1] An object is to provide a steel plate having excellent deformability in the central portion in the thickness direction and a method for manufacturing the steel plate. A steel plate having a chemical composition containing, by mass%, C: 0.01% to 0.15%, Si: 0.01% to 1.00%, Mn: 0.10% to 2.00%, P: 0.010% or less, S: 0.0050% or less, Al: 0.002% to 0.100%, Ni: 5.0% to 10.0%, N: 0.0010% to 0.0080%, and with a balance being Fe and incidental impurities and a percentage reduction of area of 30% or more in a tensile test in the thickness direction performed on the central portion in the thickness direction.

IPC 8 full level

C22C 38/00 (2006.01); **C21D 6/00** (2006.01); **C21D 9/46** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/08** (2006.01); **C22C 38/14** (2006.01); **C22C 38/16** (2006.01); **C22C 38/18** (2006.01); **C22C 38/60** (2006.01); **C21D 1/02** (2006.01); **C21D 1/18** (2006.01); **C21D 1/25** (2006.01); **C21D 8/02** (2006.01)

CPC (source: EP KR US)

B21B 3/02 (2013.01 - US); **C21D 6/001** (2013.01 - EP US); **C21D 6/002** (2013.01 - US); **C21D 6/005** (2013.01 - US); **C21D 6/007** (2013.01 - US); **C21D 6/008** (2013.01 - US); **C21D 8/0205** (2013.01 - US); **C21D 8/0226** (2013.01 - EP KR US); **C21D 9/46** (2013.01 - EP KR US); **C22C 38/001** (2013.01 - EP KR US); **C22C 38/002** (2013.01 - EP US); **C22C 38/005** (2013.01 - EP US); **C22C 38/008** (2013.01 - EP 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 38/08** (2013.01 - EP KR US); **C22C 38/10** (2013.01 - US); **C22C 38/14** (2013.01 - EP US); **C22C 38/16** (2013.01 - EP US); **C22C 38/18** (2013.01 - EP); **C22C 38/22** (2013.01 - US); **C22C 38/42** (2013.01 - KR); **C22C 38/44** (2013.01 - KR); **C22C 38/46** (2013.01 - KR); **C22C 38/48** (2013.01 - KR); **C22C 38/50** (2013.01 - KR); **C22C 38/54** (2013.01 - KR); **C22C 38/58** (2013.01 - KR); **C22C 38/60** (2013.01 - EP KR); **C21D 1/02** (2013.01 - EP); **C21D 1/18** (2013.01 - EP); **C21D 1/185** (2013.01 - EP); **C21D 1/25** (2013.01 - EP); **C21D 8/021** (2013.01 - EP); **C21D 8/0263** (2013.01 - EP)

Citation (search report)

- [I] EP 3120941 A1 20170125 - JFE STEEL CORP [JP]
- [A] JP 6394835 B1 20180926 & EP 3591085 A1 20200108 - NIPPON STEEL CORP [JP]
- [A] EP 2876179 A1 20150527 - JFE STEEL CORP [JP]
- [A] EP 3447156 A1 20190227 - JFE STEEL CORP [JP]
- See references of WO 2020184162A1

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 3916112 A1 20211201; **EP 3916112 A4 20220330**; **EP 3916112 B1 20240124**; CN 113631731 A 20211109; JP 7067628 B2 20220516; JP WO2020184162 A1 20210318; KR 102586482 B1 20231011; KR 20210125057 A 20211015; US 2022154303 A1 20220519; WO 2020184162 A1 20200917

DOCDB simple family (application)

EP 20770992 A 20200225; CN 202080020284 A 20200225; JP 2020007377 W 20200225; JP 2020544043 A 20200225; KR 20217028524 A 20200225; US 202017437505 A 20200225