

Title (en)

STEEL SHEET AND METHOD FOR PRODUCING SAME

Title (de)

STAHLBLECH UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)

TÔLE D'ACIER ET PROCÉDÉ POUR LA PRODUCTION DE CELLE-CI

Publication

EP 3835445 A4 20210818 (EN)

Application

EP 18931672 A 20180828

Priority

JP 2018031649 W 20180828

Abstract (en)

[origin: EP3835445A1] Provided is a high-Mn steel having excellent reduction-of-area property in a mid-thickness part. A steel plate comprises a chemical composition containing, in mass%, C: 0.20 % or more and 0.70 % or less, Si: 0.05 % or more and 1.0 % or less, Mn: 15 % or more and 35 % or less, Al: 0.1 % or less, Cr: 8.0 % or less, N: 0.0010 % or more and 0.0500 % or less, P: 0.03 % or less, and S: 0.005 % or less, with a balance consisting of Fe and inevitable impurities, wherein tensile strength is 600 MPa or more, absorbed energy at -196 °C is 27 J or more, and reduction of area in a thickness direction of the steel plate is 30 % or more.

IPC 8 full level

C22C 38/00 (2006.01); **C21D 8/00** (2006.01); **C21D 8/02** (2006.01); **C22C 38/02** (2006.01); **C22C 38/22** (2006.01); **C22C 38/24** (2006.01); **C22C 38/26** (2006.01); **C22C 38/28** (2006.01); **C22C 38/32** (2006.01); **C22C 38/38** (2006.01); **C22C 38/54** (2006.01); **C22C 38/58** (2006.01); **C22C 38/60** (2006.01)

CPC (source: EP KR)

C21D 6/002 (2013.01 - EP); **C21D 6/005** (2013.01 - EP); **C21D 8/021** (2013.01 - EP); **C21D 8/0226** (2013.01 - EP KR); **C21D 8/0263** (2013.01 - EP); **C22C 38/001** (2013.01 - KR); **C22C 38/002** (2013.01 - EP); **C22C 38/008** (2013.01 - EP); **C22C 38/02** (2013.01 - EP); **C22C 38/22** (2013.01 - EP); **C22C 38/24** (2013.01 - EP); **C22C 38/26** (2013.01 - EP); **C22C 38/28** (2013.01 - EP); **C22C 38/32** (2013.01 - EP); **C22C 38/38** (2013.01 - EP KR); **C22C 38/54** (2013.01 - EP); **C22C 38/58** (2013.01 - EP KR); **C22C 38/60** (2013.01 - EP KR); **C21D 2211/001** (2013.01 - EP)

Citation (search report)

- [X] WO 2018105510 A1 20180614 - JFE STEEL CORP [JP] & EP 3553195 A1 20191016 - JFE STEEL CORP [JP]
- [A] KR 20160078664 A 20160705 - POSCO [KR]
- [A] US 2017349983 A1 20171207 - JIN HYUN-WOO [US], et al
- See references of WO 2020044421A1

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 3835445 A1 20210616; EP 3835445 A4 20210818; BR 112021001870 A2 20210427; CN 112513304 A 20210316; JP 6566166 B1 20190828; JP WO2020044421 A1 20200910; KR 102524703 B1 20230421; KR 20210035263 A 20210331; MY 196194 A 20230322; PH 12021550411 A1 20210920; SG 11202101409T A 20210330; WO 2020044421 A1 20200305

DOCDB simple family (application)

EP 18931672 A 20180828; BR 112021001870 A 20180828; CN 201880096307 A 20180828; JP 2018031649 W 20180828; JP 2019502270 A 20180828; KR 20217005488 A 20180828; MY PI2021000812 A 20180828; PH 12021550411 A 20210226; SG 11202101409T A 20180828