

Title (en)

THICK STEEL PLATE HAVING EXCELLENT ULTRALOW-TEMPERATURE TOUGHNESS

Title (de)

DICKE STAHLPLATTE MIT HERVORRAGENDER BESTÄNDIGKEIT GEGEN EXTREM NIEDRIGE TEMPERATUREN

Title (fr)

PLAQUE D'ACIER ÉPAISSE DOTÉE D'UNE EXCELLENTE RÉSISTANCE À TRÈS BASSE TEMPÉRATURE

Publication

EP 2987885 A1 20160224 (EN)

Application

EP 14785212 A 20140408

Priority

- JP 2013086852 A 20130417
- JP 2014060200 W 20140408

Abstract (en)

Disclosed is a steel plate that contains predetermined steel chemical compositions. The content of Mn-containing inclusions each having a largest dimension greater than 0.1 μm in the steel is from 0.001 to 0.07 mass percent. The fraction of a retained austenite phase existing at -196°C is from 2.0 to 12.0 volume percent.

IPC 8 full level

C22C 38/00 (2006.01); **B22D 11/124** (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 38/08** (2006.01); **C22C 38/12** (2006.01); **C22C 38/14** (2006.01); **C22C 38/16** (2006.01); **C22C 38/18** (2006.01); **C22C 38/40** (2006.01); **C22C 38/42** (2006.01); **C22C 38/44** (2006.01); **C22C 38/46** (2006.01); **C22C 38/48** (2006.01); **C22C 38/50** (2006.01); **C22C 38/54** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP)

C21D 9/46 (2013.01); **C22C 38/00** (2013.01); **C22C 38/001** (2013.01); **C22C 38/002** (2013.01); **C22C 38/005** (2013.01); **C22C 38/02** (2013.01); **C22C 38/04** (2013.01); **C22C 38/06** (2013.01); **C22C 38/08** (2013.01); **C22C 38/12** (2013.01); **C22C 38/14** (2013.01); **C22C 38/16** (2013.01); **C22C 38/18** (2013.01); **C22C 38/42** (2013.01); **C22C 38/44** (2013.01); **C22C 38/46** (2013.01); **C22C 38/48** (2013.01); **C22C 38/50** (2013.01); **C22C 38/54** (2013.01); **C22C 38/58** (2013.01); **C21D 2211/001** (2013.01); **C21D 2211/004** (2013.01)

Cited by

EP3130687A4; RU2686758C1; US11384416B2

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 2987885 A1 20160224; **EP 2987885 A4 20160928**; CN 105102661 A 20151125; CN 105102661 B 20171114; JP 2014210948 A 20141113; JP 6055363 B2 20161227; KR 101726122 B1 20170411; KR 20150126702 A 20151112; WO 2014171368 A1 20141023

DOCDB simple family (application)

EP 14785212 A 20140408; CN 201480020442 A 20140408; JP 2013086852 A 20130417; JP 2014060200 W 20140408; KR 20157029195 A 20140408