

Title (en)

THICK STEEL PLATE HAVING EXCEPTIONAL HAZ TOUGHNESS AT VERY LOW TEMPERATURES

Title (de)

DICKE STAHLPLATTE MIT HERVORRAGENDER WEZ-ZÄHIGKEIT BEI SEHR NIEDRIGEN TEMPERATUREN

Title (fr)

PLAQUE D'ACIER ÉPAISSE PRÉSENTANT UNE EXCEPTIONNELLE RÉSISTANCE DES ZONES AFFECTÉES THERMIQUEMENT À DES TEMPÉRATURES TRÈS BASSES

Publication

EP 3130687 A1 20170215 (EN)

Application

EP 15776770 A 20150331

Priority

- JP 2014079378 A 20140408
- JP 2015060285 W 20150331

Abstract (en)

This thick steel plate satisfies a prescribed chemical composition, and has a Di value of 2.5-5.0, a sol. N parameter of 20 ppm or less, and an Ni-Ti balance of $0.0024 \times ([Ni] - 7.5)^2 + 0.010 - [Ti]$ or less, and furthermore has a crystal grain diameter of 4.0 μm or less after heating at 700°C \times 5s and cooling from 700°C to 500°C in 19 s.

IPC 8 full level

C22C 38/00 (2006.01); **C21D 6/00** (2006.01); **C22C 38/14** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP KR)

C21D 6/001 (2013.01 - EP); **C21D 8/0226** (2013.01 - EP); **C21D 9/46** (2013.01 - EP); **C21D 9/50** (2013.01 - EP); **C22C 38/00** (2013.01 - EP); **C22C 38/001** (2013.01 - EP KR); **C22C 38/002** (2013.01 - EP); **C22C 38/005** (2013.01 - EP KR); **C22C 38/02** (2013.01 - EP KR); **C22C 38/04** (2013.01 - EP KR); **C22C 38/06** (2013.01 - EP); **C22C 38/08** (2013.01 - EP KR); **C22C 38/12** (2013.01 - EP); **C22C 38/14** (2013.01 - EP KR); **C22C 38/16** (2013.01 - EP KR); **C22C 38/40** (2013.01 - EP); **C22C 38/42** (2013.01 - EP); **C22C 38/44** (2013.01 - EP); **C22C 38/46** (2013.01 - EP); **C22C 38/48** (2013.01 - EP); **C22C 38/50** (2013.01 - EP); **C22C 38/54** (2013.01 - EP); **C22C 38/58** (2013.01 - EP KR); **F17C 2203/0639** (2013.01 - EP); **F17C 2203/0648** (2013.01 - EP); **F17C 2203/0675** (2013.01 - EP)

Cited by

EP3712291A4; EP3730657A4; US11434557B2; US11591679B2

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 3130687 A1 20170215; **EP 3130687 A4 20170830**; CN 106133172 A 20161116; CN 106133172 B 20180102; JP 2015199983 A 20151112; JP 6196929 B2 20170913; KR 101843677 B1 20180329; KR 20160130442 A 20161111; WO 2015156179 A1 20151015

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