Title (en)

STEEL SHEET FOR THICK-WALLED HIGH-STRENGTH LINE PIPE HAVING EXCEPTIONAL CORROSION RESISTANCE, CRUSH RESISTANCE PROPERTIES, AND LOW-TEMPERATURE DUCTILITY, AND LINE PIPE

Title (de)

STAHLBLECH FÜR HOCHFESTES DICKWANDIGES LEITUNGSROHR MIT AUSSERGEWÖHNLICHEM KORROSIONSWIDERSTAND, QUETSCHFESTIGKEITSEIGENSCHAFTEN UND DUKTILITÄT BEI NIEDRIGEN TEMPERATUREN SOWIE LEITUNGSROHR

Title (fr)

TÔLE D'ACIER POUR TUBE D' OLÉODUC À HAUTE RÉSISTANCE MÉCANIQUE, À PAROI ÉPAISSE PRÉSENTANT D'EXCEPTIONNELLES PROPRIÉTÉS DE RÉSISTANCE À LA CORROSION, DE RÉSISTANCE À L'ÉCRASEMENT, ET UNE DUCTILITÉ À BASSE TEMPÉRATURE, AINSI QUE TUBE D' OLÉODUC

Publication

EP 3042976 A1 20160713 (EN)

Application

EP 14840842 A 20140829

Priority

- JP 2013180663 A 20130830
- JP 2014072833 W 20140829

Abstract (en)

This invention provides steel plate for thick-gauge high-strength linepipe which is excellent in sour resistance, collapse resistance, and low-temperature toughness and the method for manufacturing the same. Steel plate for thick-gauge high-strength linepipe comprises steel plate having a plate thickness of 25 mm to 45 mm, wherein a microstructure of surface layer portion is restricted to, by area percentage, deformed ferrite: 5% or more and S fe1 % found by the following formula 1a or less and martensite-austenite mixture: 8% or less and has a balance of one or both of polygonal ferrite and bainite, and a microstructure of a mid-thickness portion is restricted to, by area percentage, deformed ferrite: 5% or less, martensite-austenite mixture: 5% or less and has a balance of one or both of acicular ferrite and bainite, and the surface layer portion and mid-thickness portion have average value of effective grain size measured by electron backscatter diffraction of 20 μm or less. ##########S fe1 =0. 6552×T H -4.7826 ···##########formula 1a where, T H : plate thickness of steel plate for thick-gauge high-strength linepipe

IPC 8 full level

C22C 38/00 (2006.01); **C21D 8/02** (2006.01); **C21D 8/10** (2006.01); **C21D 9/08** (2006.01); **C21D 9/14** (2006.01); **C22C 38/12** (2006.01); **C22C 38/14** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP RU)

C21D 1/78 (2013.01 - EP); **C21D 8/0263** (2013.01 - EP); **C21D 9/14** (2013.01 - EP); **C22C 38/12** (2013.01 - EP); **C22C 38/14** (2013.01 - EP RU); **C22C 38/58** (2013.01 - EP); C21D 8/0226 (2013.01 - EP); C21D 8/105 (2013.01 - EP); C21D 2211/002 (2013.01 - EP); C21D 2211/005 (2013.01 - EP); C21D 2221/10 (2013.01 - EP)

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CN110088333A; EP3561112A4; EP4092149A4; US11453933B2; US11591677B2; US11634784B2; JP2019174452A; US11572600B2; US11578379B2

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 3042976 A1 20160713; **EP 3042976 A4 20170510**; **EP 3042976 B1 20200513**; CN 105143487 A 20151209; CN 105143487 B 20170308; JP 5776860 B1 20150909; JP WO2015030210 A1 20170302; KR 101730756 B1 20170426; KR 20150139950 A 20151214; RU 2016106920 A 20171005; RU 2637202 C2 20171130; WO 2015030210 A1 20150305

DOCDB simple family (application)

EP 14840842 A 20140829; CN 201480021680 A 20140829; JP 2014072833 W 20140829; JP 2015501254 A 20140829; KR 20157031929 A 20140829; RU 2016106920 A 20140829