

Title (en)
AS-ROLLED ELECTRIC RESISTANCE-WELDED STEEL PIPE FOR LINE PIPE, AND HOT-ROLLED STEEL SHEET

Title (de)
WIDERSTANDSGESCHWEISSTES STAHLROHR IM WALZZUSTAND FÜR LEITUNGSRÖHR UND WARMGEWALZTES STAHLBLECH

Title (fr)
TUYAU EN ACIER SOUDÉ PAR RÉSISTANCE ÉLECTRIQUE DE LAMINAGE POUR TUYAU DE CANALISATION, ET TÔLE D'ACIER LAMINÉE À CHAUD

Publication
EP 3608434 B1 20210602 (EN)

Application
EP 17914739 A 20170622

Priority
JP 2017023086 W 20170622

Abstract (en)
[origin: EP3608434A1] An as-rolled electric resistance welded steel pipe for a line pipe, in which a base metal portion includes, in terms of % by mass, 0.030 to 0.120% of C, 0.05 to 0.30% of Si, 0.50 to 2.00% of Mn, 0.010 to 0.035% of Al, 0.0010 to 0.0080% of N, 0.010 to 0.080% of Nb, 0.005 to 0.030% of Ti, 0.001 to 0.20% of Ni, and 0.10 to 0.20% of Mo, and the balance includes Fe and impurities, wherein the following F1 is from 0.300 to 0.350, and wherein in a metallographic microstructure of a wall thickness direction central portion of the base metal portion, a polygonal ferrite fraction is from 60 to 90%, an average crystal grain diameter is 15 μm or less, and a coarse crystal grain ratio, which is an areal ratio of crystal grains having a crystal grain diameter of 20 μm or more, is 20% or less; $F1 = C + Si/24 + Mn/6 + Ni/40 + Cr/5 + Mo/4 + V/3 + Nb/3$.

IPC 8 full level
C22C 38/00 (2006.01); **C21D 6/00** (2006.01); **C21D 8/02** (2006.01); **C21D 8/10** (2006.01); **C21D 9/08** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/12** (2006.01); **C22C 38/14** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP)
C21D 6/005 (2013.01); **C21D 8/0205** (2013.01); **C21D 8/0226** (2013.01); **C21D 8/105** (2013.01); **C21D 9/08** (2013.01); **C22C 38/001** (2013.01); **C22C 38/02** (2013.01); **C22C 38/04** (2013.01); **C22C 38/06** (2013.01); **C22C 38/12** (2013.01); **C22C 38/14** (2013.01); **C21D 6/001** (2013.01); **C21D 6/008** (2013.01); **C21D 2211/002** (2013.01); **C21D 2211/005** (2013.01)

Cited by
EP4095280A4

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

DOCDB simple family (publication)
EP 3608434 A1 20200212; **EP 3608434 A4 20200902**; **EP 3608434 B1 20210602**; CN 110546289 A 20191206; JP 6260757 B1 20180117; JP WO2018235244 A1 20190627; WO 2018235244 A1 20181227

DOCDB simple family (application)
EP 17914739 A 20170622; CN 201780089464 A 20170622; JP 2017023086 W 20170622; JP 2017552185 A 20170622