

Title (en)

ELECTRIC RESISTANCE WELDED STEEL TUBE FOR LINE PIPE

Title (de)

ELEKTRISCHES WIDERSTANDSGESCHWEISSTES STAHLROHR FÜR EIN LEITUNGSROHR

Title (fr)

TUBE EN ACIER SOUDÉ PAR RÉSISTANCE ÉLECTRIQUE POUR CANALISATION

Publication

EP 3375900 A1 20180919 (EN)

Application

EP 17770030 A 20170313

Priority

- JP 2016056858 A 20160322
- JP 2017010023 W 20170313

Abstract (en)

An electric resistance welded steel pipe for a line pipe, in which a base metal portion includes, in terms of % by mass, 0.080 to 0.120% of C, 0.30 to 1.00% of Mn, 0.005 to 0.050% of Ti, 0.010 to 0.100% of Nb, 0.001 to 0.020% of N, 0.010 to 0.450% of Si, and 0.001 to 0.100% of Al, and the balance includes Fe and impurities, and wherein C_{Meq}, expressed by Formula (1), is 0.170 to 0.300, a Mn/Si ratio is 2.0 or more, LR, expressed by Formula (2), is 0.210 or more, in a case in which a metallographic microstructure of the base metal portion is observed using a scanning electron microscope at a magnification of 1,000 times, an areal ratio of a first phase that is ferrite is from 60 to 98%, and a second phase, which is the balance, includes tempered bainite; $C_{Meq} = C + Mn / 6 + Cr / 5 + Ni + Cu / 15 + Nb + Mo / 3 + V$ LR = 2.1 × C + Nb / Mn

IPC 8 full level

C22C 38/00 (2006.01); **C21D 8/02** (2006.01); **C21D 9/08** (2006.01); **C22C 38/14** (2006.01); **C22C 38/50** (2006.01)

CPC (source: EP KR)

C21D 8/02 (2013.01 - KR); **C21D 8/0205** (2013.01 - EP); **C21D 8/0226** (2013.01 - EP); **C21D 8/105** (2013.01 - EP); **C21D 9/08** (2013.01 - EP KR); **C22C 38/001** (2013.01 - EP KR); **C22C 38/02** (2013.01 - EP KR); **C22C 38/04** (2013.01 - EP KR); **C22C 38/06** (2013.01 - EP KR); **C22C 38/12** (2013.01 - EP KR); **C22C 38/14** (2013.01 - EP KR); **C21D 2211/002** (2013.01 - EP); **C21D 2211/005** (2013.01 - EP)

Cited by

EP4066954A4; EP3960891A4; WO2021133343A1; WO2023014330A1; TWI738246B

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

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