

Title (en)

AS-ROLLED ELECTRIC RESISTANCE WELDED STEEL PIPE FOR LINE PIPE

Title (de)

WIDERSTANDSGESCHWEISSTES STAHLROHR IM WALZZUSTAND FÜR LEITUNGSROHRE

Title (fr)

TUYAU EN ACIER SOUDÉ PAR RÉSISTANCE ÉLECTRIQUE TEL QUE LAMINÉ POUR TUYAUX DE CANALISATION

Publication

EP 3546610 B1 20210616 (EN)

Application

EP 17904175 A 20170329

Priority

JP 2017013013 W 20170329

Abstract (en)

[origin: EP3546610A1] An as-rolled electric resistance welded steel pipe for a line pipe has a base metal portion that includes, in terms of % by mass, 0.01 to 0.10% of C, 0.01 to 0.40% of Si, 0.50 to 2.00% of Mn, 0 to 0.030% of P, 0 to 0.0015% of S, 0.010 to 0.050% of Al, 0.0030 to 0.0080% of N, 0.010 to 0.050% of Nb and 0.005 to 0.020% of Ti, the balance comprising Fe and impurities, and in a metallographic microstructure of the base metal portion, an areal ratio of polygonal ferrite is 80% to 98% and the balance is composed of at least one of bainite or pearlite, a yield strength in a pipe axis direction is 415 to 550 MPa, a tensile strength in the pipe axis direction is 461 to 625 MPa, and a maximum Vickers hardness of an inner surface layer of the base metal portion is 248 HV or less and is smaller than a maximum Vickers hardness of an outer surface layer of the base metal portion by 5 HV or more.

IPC 8 full level

C22C 38/00 (2006.01); **C21D 8/10** (2006.01); **C21D 9/08** (2006.01); **C21D 9/50** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/12** (2006.01); **C22C 38/14** (2006.01)

CPC (source: EP KR)

C21D 8/10 (2013.01 - EP); **C21D 8/105** (2013.01 - KR); **C21D 9/08** (2013.01 - EP KR); **C21D 9/50** (2013.01 - EP KR); **C22C 38/00** (2013.01 - EP); **C22C 38/001** (2013.01 - EP); **C22C 38/04** (2013.01 - EP); **C22C 38/12** (2013.01 - EP); **C22C 38/14** (2013.01 - EP); **C22C 38/58** (2013.01 - EP KR); **C21D 2211/005** (2013.01 - EP)

Cited by

EP4066954A4; US12037667B2; US11739866B2

Designated contracting state (EPC)

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