

Title (en)

HOT-ROLLED STEEL PLATE FOR HIGH-STRENGTH LINE PIPE

Title (de)

HEISSGEWALZTES STAHLBLECH FÜR HOCHFESTE LEITUNGSROHRE

Title (fr)

PLAQUE D'ACIER LAMINÉE À CHAUD DESTINÉE À UN TUYAU DE CANALISATION À HAUTE RÉSISTANCE

Publication

**EP 2927339 B1 20161102 (EN)**

Application

**EP 14743980 A 20140123**

Priority

- JP 2013010976 A 20130124
- JP 2014000320 W 20140123

Abstract (en)

[origin: EP2927339A1] Provided is an electric resistance welded steel pipe for a high strength linepipe excellent in terms of HIC resistance. A hot-rolled steel sheet for a high strength linepipe, the steel sheet having a chemical composition containing, by mass%, C: 0.02% or more and 0.06% or less, Si: 0.05% or more and 0.25% or less, Mn: 0.60% or more and 1.10% or less, P: 0.008% or less, S: 0.0010% or less, Nb: 0.010% or more and 0.060% or less, Ti: 0.001% or more and 0.020% or less, Mo: 0.05% or less, Cr: 0.05% or more and 0.50% or less, Al: 0.01% or more and 0.08% or less, Ca: 0.0005% or more and 0.0050% or less, O: 0.005% or less, one or more selected from among Cu: 0.50% or less, Ni: 0.50% or less, and V: 0.10% or less, and the balance being Fe and inevitable impurities, and a metallic structure composed of bainitic-ferrite, in which expression (1) below is satisfied, and in which the ratio of the hardness of a center segregation part to the hardness of a non-segregation part is less than 1.20.  $SP \leq 1.90$  where SP is derived from  $SP = Mn + Mo + 11.3 \times C + 0.29 \times (Cu + Ni) + 0.60 \times Cr + 0.88 \times V$ , and where atomic symbols in the equation respectively represent the contents (mass%) of the corresponding chemical elements.

IPC 8 full level

**C21D 8/02** (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/20** (2006.01); **C22C 38/24** (2006.01); **C22C 38/26** (2006.01); **C22C 38/28** (2006.01); **C22C 38/42** (2006.01); **C22C 38/44** (2006.01); **C22C 38/46** (2006.01); **C22C 38/48** (2006.01); **C22C 38/50** (2006.01)

CPC (source: EP US)

**C21D 8/0205** (2013.01 - EP US); **C21D 8/0226** (2013.01 - EP US); **C21D 8/0263** (2013.01 - EP US); **C21D 9/46** (2013.01 - EP US); **C22C 38/00** (2013.01 - EP US); **C22C 38/002** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - EP US); **C22C 38/20** (2013.01 - EP US); **C22C 38/22** (2013.01 - EP US); **C22C 38/24** (2013.01 - EP US); **C22C 38/26** (2013.01 - EP US); **C22C 38/28** (2013.01 - EP US); **C22C 38/42** (2013.01 - EP US); **C22C 38/44** (2013.01 - EP US); **C22C 38/46** (2013.01 - EP US); **C22C 38/48** (2013.01 - EP US); **C22C 38/50** (2013.01 - EP US); **C21D 2211/004** (2013.01 - EP US); **C21D 2211/005** (2013.01 - EP US)

Designated contracting state (EPC)

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