Title (en)

HIGH-STRENGTH STEEL SHEET FOR SOUR-RESISTANT LINE PIPE, METHOD FOR PRODUCING SAME, AND HIGH-STRENGTH STEEL PIPE USING HIGH-STRENGTH STEEL SHEET FOR SOUR-RESISTANT LINE PIPE

Title (de)

HOCHFESTES STAHLBLECH FÜR SAUERGASBESTÄNDIGES LEITUNGSROHR, VERFAHREN ZUR HERSTELLUNG DAVON UND HOCHFESTES STAHLROHR MIT VERWENDUNG VON HOCHFESTEM STAHLBLECH FÜR SAUERGASBESTÄNDIGES LEITUNGSROHR

Title (fr)

TÔLE D'ACIER HAUTE RÉSISTANCE POUR TUYAU DE CANALISATION RÉSISTANT À L'ACIDITÉ, SON PROCÉDÉ DE PRODUCTION, ET TUYAU EN ACIER HAUTE RÉSISTANCE UTILISANT UNE TÔLE D'ACIER HAUTE RÉSISTANCE POUR TUYAU DE CANALISATION RÉSISTANT À L'ACIDITÉ

Publication

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Application

EP 19864846 A 20190925

Priority

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- JP 2019037698 W 20190925

Abstract (en)

[origin: EP3859026A1] Disclosed is a high strength steel plate for a sour-resistant line pipe that is excellent not only in HIC resistance but also in SSCC resistance under more severe corrosion environments and environments with low hydrogen sulfide partial pressure below 1 bar. The high strength steel plate for a sour-resistant line pipe disclosed herein has: a chemical composition containing C, Si, Mn, P, S, Al, Mo, and Ca, and at least one of Nb or Ti, in predetermined amounts, with the balance being Fe and inevitable impurities; a steel microstructure at 0.25 mm below a surface of the steel plate being a bainite microstructure having a dislocation density of 1.0 × 10¹⁴ to 7.0 × 10¹⁴ (m⁻²); a variation in Vickers hardness at 0.25 mm below the surface of the steel plate being 30 HV or less at 3σ, where σ is a standard deviation; a variation in Vickers hardness in a plate thickness direction being 30 HV or less at 3σ, where σ is a standard deviation; and a tensile strength being 520 MPa or more.

IPC 8 full level

C22C 38/00 (2006.01); **C21D 6/00** (2006.01); **C21D 8/02** (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 38/16** (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); **C22C 38/58** (2006.01)

CPC (source: EP KR RU)

C21D 6/005 (2013.01 - EP); **C21D 6/008** (2013.01 - EP); **C21D 8/0226** (2013.01 - EP KR RU); **C21D 8/0263** (2013.01 - EP); **C21D 9/46** (2013.01 - KR); **C22C 38/001** (2013.01 - EP); **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 RU); **C22C 38/14** (2013.01 - EP KR RU); **C22C 38/16** (2013.01 - EP); **C22C 38/20** (2013.01 - KR); **C22C 38/22** (2013.01 - RU); **C22C 38/24** (2013.01 - RU); **C22C 38/26** (2013.01 - RU); **C22C 38/28** (2013.01 - RU); **C22C 38/38** (2013.01 - RU); **C22C 38/42** (2013.01 - EP); **C22C 38/44** (2013.01 - EP RU); **C22C 38/46** (2013.01 - EP RU); **C22C 38/48** (2013.01 - EP RU); **C22C 38/50** (2013.01 - EP RU); **C22C 38/58** (2013.01 - RU); C21D 2211/002 (2013.01 - EP)

Citation (search report)

- [E] EP 3604584 A1 20200205 - JFE STEEL CORP [JP]
- [A] JP 2012077331 A 20120419 - JFE STEEL CORP
- [A] JP 2013139630 A 20130718 - JFE STEEL CORP
- See references of WO 2020067210A1

Designated contracting state (EPC)

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BA ME

DOCDB simple family (publication)

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