Title (en)

NON-HEAT-TREATED STEEL SHEET HAVING HIGH YIELD STRENGTH IN WHICH HARDNESS OF A WELDING-HEAT-AFFECTED ZONE AND DEGRADATION OF LOW-TEMPERATURE TOUGHNESS OF THE WELDING-HEAT-AFFECTED ZONE ARE SUPPRESSED

Title (de)

WÄRMEUNBEHANDELTES STAHLBLECH MIT HOHER STRECKGRENZE UND UNTERDRÜCKTER HÄRTE EINER SCHWEISSHITZEBEEINTRÄCHTIGTEN ZONE SOWIE UNTERDRÜCKTER DEGRADATION DER TIEFTEMPERATURZÄHIGKEIT DER SCHWEISSHITZEBEEINTRÄCHTIGTEN ZONE

Title (fr)

TÔLE D'ACIER NON TRAITÉE THERMIQUEMENT AYANT UNE LIMITE ÉLASTIQUE ÉLEVÉE DANS LAQUELLE LA DURETÉ D'UNE ZONE AFFECTÉE PAR LA CHALEUR DE SOUDAGE ET LA DÉGRADATION DE LA TÉNACITÉ À BASSE TEMPÉRATURE DE LA ZONE AFFECTÉE PAR LA CHALEUR DE SOUDAGE SONT SUPPRIMÉES

Publication

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Application

EP 16870530 A 20161124

Priority

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Abstract (en)

[origin: EP3385399A1] To provide a non-heat-treated steel plate having high yield strength in which hardness of a weld heat-affected zone and degradation of low-temperature toughness of the weld heat-affected zone are suppressed. The steel wire rod of the present disclosure includes predetermined components in steel, wherein Ceq defined by the formula (1) below is less than 0.44, an A value defined by the formula (2) below is 2.50 or more, and a B value defined by the formula (3) below is 2.37 or more, and wherein area ratios of metal structures in a 1/4 position of a thickness of the steel plate satisfy bainite: 80% by area or more, and martensite-austenite constituent: 0% by area or more and 0.26% by area or less, and wherein a maximum hardness of the bainite is 270 HV or more. Ceq = C + Mn / 6 + Cu + Ni / 15 + Cr + Mo + V / 5 A value = 1.15 × Mn + 2.20 × Mo + 6.50 × Nb B value = 1.20 × Mn + 0.50 × Ni + 4.25 × Nb

IPC 8 full level

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

CPC (source: EP KR)

B21C 37/08 (2013.01 - EP); **C21D 8/02** (2013.01 - KR); **C21D 8/0226** (2013.01 - EP); **C21D 9/46** (2013.01 - EP); **C22C 38/001** (2013.01 - EP KR); **C22C 38/002** (2013.01 - EP); **C22C 38/005** (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 38/08** (2013.01 - EP); **C22C 38/12** (2013.01 - EP KR); **C22C 38/14** (2013.01 - EP KR); **C22C 38/16** (2013.01 - EP); **C22C 38/20** (2013.01 - EP); **C22C 38/22** (2013.01 - EP); **C22C 38/24** (2013.01 - EP); **C22C 38/26** (2013.01 - EP); **C22C 38/28** (2013.01 - EP); **C22C 38/32** (2013.01 - EP); **C22C 38/38** (2013.01 - EP); **C22C 38/42** (2013.01 - EP); **C22C 38/46** (2013.01 - EP); **C22C 38/48** (2013.01 - EP); **C22C 38/50** (2013.01 - EP); **C22C 38/54** (2013.01 - EP); **C22C 38/58** (2013.01 - EP); C21D 2211/002 (2013.01 - EP KR); C21D 2211/005 (2013.01 - EP)

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Designated contracting state (EPC)

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