

Title (en)
HOT ROLLED HIGH TENSILE STRENGTH STEEL SHEET AND METHOD FOR MANUFACTURING SAME

Title (de)
WARMGEWALZTES HOCHFESTES STAHLBLECH UND DESSEN HERSTELLUNGSVERFAHREN

Title (fr)
FEUILLE D'ACIER LAMINÉE À CHAUD À HAUTE RÉSISTANCE ET SON PROCÉDÉ DE FABRICATION

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EP 2799575 B1 20161221 (EN)

Application
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Abstract (en)
[origin: EP2799575A1] The present invention provides a hot rolled high tensile strength steel sheet that exhibits excellent deformation characteristics after formed into pipes or tubes, without suffering local buckling when deformed by bending as steel pipes or tubes, and thus is suitable for making line pipes and oil well pipes or tubes. The steel sheet has a chemical composition containing, by mass%, C: 0.04-0.08 %, Si: 0.50 % or less, Mn: 0.8-2.2 %, P: 0.02 % or less, S: 0.006 % or less, Al: 0.1 % or less, N: 0.008 % or less, and Cr: 0.05-0.8 %, and further Nb: 0.01-0.08 %, V: 0.001-0.12 %, and Ti: 0.005-0.04 % in adjusted amounts, with the balance including Fe and incidental impurities. The steel sheet has a surface layer having a microstructure containing bainite as a main phase, martensite as a second phase in a volume fraction of 0.5-4 %, and at least one of ferrite phase, pearlite, and cementite as a third phase in a total volume fraction of 10 % or less.

IPC 8 full level
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