

Title (en)

HIGH-TENSILE STEEL PLATE HAVING EXCELLENT LOW-TEMPERATURE TOUGHNESS

Title (de)

STAHLPLATTE MIT HOHER BRUCHFESTIGKEIT UND HERVORRAGENDER BESTÄNDIGKEIT GEGEN NIEDRIGE TEMPERATUREN

Title (fr)

PLAQUE D'ACIER À HAUTE RÉSISTANCE MÉCANIQUE PRÉSENTANT UNE EXCELLENTE TÉNACITÉ À BASSE TEMPÉRATURE

Publication

**EP 3467130 A4 20191030 (EN)**

Application

**EP 16903957 A 20160531**

Priority

JP 2016065982 W 20160531

Abstract (en)

[origin: EP3467130A1] A high tensile strength steel plate has a chemical composition including, by mass%: C: 0.08% to 0.15%; Mn: 0.80% to 1.60%; Ni: 3.00% to 4.50%; Cr: 0.50% to 1.00%; Mo: 0.50% to 1.00%; Al: 0.020% to 0.085%; N: 0.0020% to 0.0070%; and B: 0.0005% to 0.0020%, in which a plate thickness t mm is more than 200 mm and not more than 300 mm, in the chemical composition, Ts is 380 to 430, Ceq is 0.80 to 1.05, Ac1 is 580 to 647, and x is 46 to 90, a total amount of martensite and bainite is 99% to 100% by area%, a tensile strength is 780 MPa to 930 MPa, and an absorbed energy of a thickness middle portion obtained by a charpy impact test at -60° C is 69 J or more.

IPC 8 full level

**C22C 38/00** (2006.01); **C21D 8/02** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/42** (2006.01); **C22C 38/44** (2006.01); **C22C 38/46** (2006.01); **C22C 38/48** (2006.01); **C22C 38/50** (2006.01); **C22C 38/54** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP KR)

**C21D 8/02** (2013.01 - KR); **C21D 8/0205** (2013.01 - EP); **C21D 8/0226** (2013.01 - EP); **C21D 8/0263** (2013.01 - EP); **C22C 38/001** (2013.01 - EP KR); **C22C 38/005** (2013.01 - EP); **C22C 38/02** (2013.01 - EP); **C22C 38/04** (2013.01 - EP KR); **C22C 38/06** (2013.01 - EP KR); **C22C 38/42** (2013.01 - EP); **C22C 38/44** (2013.01 - EP KR); **C22C 38/46** (2013.01 - EP); **C22C 38/48** (2013.01 - EP); **C22C 38/50** (2013.01 - EP); **C22C 38/54** (2013.01 - EP KR); **C22C 38/58** (2013.01 - EP KR); **C21D 2211/002** (2013.01 - EP KR); **C21D 2211/008** (2013.01 - EP KR)

Citation (search report)

- [XAI] WO 2015140846 A1 20150924 - JFE STEEL CORP [JP] & EP 3120941 A1 20170125 - JFE STEEL CORP [JP]
- [IA] WO 2015162939 A1 20151029 - JFE STEEL CORP [JP] & EP 3135787 A1 20170301 - JFE STEEL CORP [JP]
- [IA] EP 2942414 A1 20151111 - JFE STEEL CORP [JP]
- See references of WO 2017208329A1

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DOCDB simple family (application)

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