

Title (en)

HIGH STRENGTH STEEL SHEET HAVING EXCELLENT RESISTANCE TO POST WELD HEAT TREATMENT AND METHOD FOR MANUFACTURING SAME

Title (de)

HOCHFESTES STAHLBLECH MIT AUSGEZEICHNETER RESISTENZ GEGEN EINE NACH DEM SCHWEISSEN ERFOLGENDE WÄRMEBEHANDLUNG SOWIE VERFAHREN ZU DESSEN HERSTELLUNG

Title (fr)

FEUILLARD D'ACIER À RÉSISTANCE MÉCANIQUE ÉLEVÉE AYANT UNE EXCELLENTE RÉSISTANCE AU TRAITEMENT THERMIQUE POST-SOUDAGE ET SON PROCÉDÉ DE FABRICATION

Publication

EP 2520680 A4 20141119 (EN)

Application

EP 10841182 A 20101222

Priority

- KR 20090132129 A 20091228
- KR 2010009225 W 20101222

Abstract (en)

[origin: EP2520680A2] Provided are a steel sheet having excellent Post Weld Heat Treatment (PWHT) resistance of which strength and toughness are not deteriorated even after performing PWHT for a lengthy period of time, and a method for manufacturing the steel sheet. The steel sheet has a composition comprising by weight percent: 0.1 to 0.3% of C; 0.15 to 0.50% of Si; 0.6 to 1.2% of Mn; 0.035% or less of P; 0.020% or less of S; 0.001 to 0.05% of Al; 0.01 to 0.35% of Cr; 0.005 to 0.2% of Mo; 0.005 to 0.05% of V; 0.001 to 0.05% of Nb; 0.001 to 0.05% of Ti; 0.0005 to 0.005% of Ca; 0.05 to 0.5% of Ni; one or more selected from the group consisting of 0.005 to 0.5% of Cu, 0.005 to 0.2% of Co and 0.005 to 0.2% of W; and Fe as well as unavoidable impurities.

IPC 8 full level

C22C 38/00 (2006.01); **B21B 1/22** (2006.01); **B21B 3/02** (2006.01); **C21D 8/02** (2006.01)

CPC (source: EP KR)

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Citation (search report)

- [A] US 2009025839 A1 20090129 - WATANABE YOSHIYUKI [JP], et al
- [A] JP 2009041073 A 20090226 - SUMITOMO METAL IND
- [AP] EP 2258884 A1 20101208 - KOBE STEEL LTD [JP]
- [A] JP H11131177 A 19990518 - NIPPON STEEL CORP
- [A] JP 2006045672 A 20060216 - JFE STEEL KK
- [A] WO 2009119368 A1 20091001 - KOBE STEEL LTD [JP], et al
- See references of WO 2011081350A2

Cited by

JP2014201760A; EP3733904A4; EP3395984A4; EP3561111A4; US11578376B2; US11649515B2; US11634785B2; US11656169B2; US11788951B2

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DOCDB simple family (application)

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