

Title (en)
STEEL SHEET FOR HOT-STAMPED MEMBER AND PROCESS FOR PRODUCING SAME

Title (de)
STAHLBLECH FÜR HEISSGESTANZTE ELEMENTE UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)
FEUILLE D'ACIER POUR UN ÉLÉMENT ESTAMPÉ À CHAUD ET SON PROCÉDÉ DE FABRICATION

Publication
EP 2687620 A4 20141015 (EN)

Application
EP 12760551 A 20120316

Priority
• JP 2011060893 A 20110318
• JP 2012056917 W 20120316

Abstract (en)
[origin: EP2687620A1] A steel sheet for obtaining a member which is excellent in fatigue characteristics equal to ordinary high strength steel sheet of the same strength even if applying the hot stamping process and a method of production of the same are provided. Steel sheet for a hot stamped member which includes composition which contains, by mass%, C: 0.15 to 0.35%, Si: 0.01 to 1.0%, Mn: 0.3 to 2.3%, Al: 0.01 to 0.5%, and a balance of Fe and unavoidable impurities, and limit the impurities to P: 0.03% or less, S: 0.02% or less, and N: 0.1% or less, wherein that a standard error of Vicker's hardness at a position of 20 μm from the steel sheet surface in the sheet thickness direction is 20 or less. This steel sheet is produced by a recrystallizationannealing step of a first stage of heating a cold rolled steel sheet, which is obtained by hot rolling steel containing the above composition and then cold rolling it, by an average heating rate of 8 to 25 °C/sec from room temperature to 600 to 700 °C, then a second stage of heating by an average heating rate of 1 to 7 °C/sec to 720 to 820 °C.

IPC 8 full level
C22C 38/00 (2006.01); **C21D 1/18** (2006.01); **C21D 9/00** (2006.01); **C22C 38/06** (2006.01); **C22C 38/58** (2006.01); **C23C 2/02** (2006.01); **C23C 2/06** (2006.01); **C23C 2/12** (2006.01); **C23C 2/28** (2006.01)

CPC (source: EP KR US)
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• [X] EP 1439240 A1 20040721 - SUMITOMO METAL IND [JP]
• [A] EP 1160346 A1 20011205 - NIPPON STEEL CORP [JP]
• [A] WO 2007064172 A1 20070607 - POSCO [KR], et al
• [A] JP 2003147499 A 20030521 - SUMITOMO METAL IND

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EP3584338A4; RU2695688C1; EP3584339A4; WO2020239891A1; WO2023079344A1; WO2023079454A1

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