

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 A1 20140122 (EN)

Application

EP 12760551 A 20120316

Priority

- JP 2011060893 A 20110318
- JP 2012056917 W 20120316

Abstract (en)

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 recrystallization annealing 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

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CPC (source: EP KR US)

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