

Title (en)

High strength thin steel sheet having high hydrogen embrittlement resisting property

Title (de)

Hochfestes dünnes Stahlblech mit hohem Widerstand gegen Wasserstoffversprödung

Title (fr)

Tôle d'acier mince à haute résistance, possédant une résistance accrue à la fragilisation par l'hydrogène

Publication

**EP 1676932 B1 20151021 (EN)**

Application

**EP 05028444 A 20051223**

Priority

- JP 2004381230 A 20041228
- JP 2004381231 A 20041228
- JP 2004381232 A 20041228
- JP 2005147238 A 20050519
- JP 2005147239 A 20050519
- JP 2005147240 A 20050519

Abstract (en)

[origin: EP1676932A1] The purpose of the present invention is to provide a high strength thin steel sheet that has high hydrogen embrittlement resisting property. In order to achieve the above purpose, a high strength thin steel sheet having high hydrogen embrittlement resisting property comprises: C: 0.10 to 0.25%; Si: 1.0 to 3.0%; Mn: 1.0 to 3.5%; P: 0.15% or less; S: 0.02% or less; and Al: 1.5% or less (higher than 0%) in terms of percentage by weight, with balance of iron and inevitable impurities; and the metal structure comprises: residual austenite; 1% by area or more in proportion to the entire structure; bainitic ferrite and martensite: 80% or more in total; and ferrite and pearlite: 9% or less (may be 0%) in total, while the mean axis ratio (major axis/minor axis) of said residual austenite grains is 5 or higher, and the steel has tensile strength of 1180 MPa or higher.

IPC 8 full level

**C22C 38/02** (2006.01); **C22C 38/04** (2006.01)

CPC (source: EP US)

**C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - EP US); **C22C 38/08** (2013.01 - EP US); **C22C 38/12** (2013.01 - EP US); **C22C 38/16** (2013.01 - EP US); **C21D 2211/002** (2013.01 - EP US)

Cited by

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Designated contracting state (EPC)

AT DE FR GB

DOCDB simple family (publication)

**EP 1676932 A1 20060705; EP 1676932 B1 20151021**; CA 2531615 A1 20060628; KR 100723092 B1 20070530; KR 20060076744 A 20060704; US 2006137768 A1 20060629

DOCDB simple family (application)

**EP 05028444 A 20051223**; CA 2531615 A 20051223; KR 20050131831 A 20051228; US 31717405 A 20051227