

Title (en)
HIGH-STRENGTH STEEL SHEET AND METHOD FOR MANUFACTURING SAME

Title (de)
HOCHFESTES STAHLBLECH UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)
TÔLE D'ACIER HAUTE RÉSISTANCE ET SON PROCÉDÉ DE FABRICATION

Publication
EP 4282993 A4 20240724 (EN)

Application
EP 22780060 A 20220315

Priority
• JP 2021062132 A 20210331
• JP 2022011493 W 20220315

Abstract (en)
[origin: EP4282993A1] To provide a high-strength steel sheet with high tensile strength, press formability, and bendability, and a method for manufacturing the high-strength steel sheet. The high-strength steel sheet has a predetermined chemical composition and has a microstructure containing a specific microstructure in a surface layer region extending from a surface of the steel sheet to a position of one-tenth of the thickness of the steel sheet and in an inner region extending from a position of one-tenth to a position of three-tenths of the thickness of the steel sheet. The surface layer region extending from the surface of the steel sheet to the position of one-tenth of the thickness of the steel sheet has an average grain size of 6 μm or less. A difference (HV2 - HV1) between a hardness (HV1) of the surface layer region extending from the surface of the steel sheet to the position of one-tenth of the thickness of the steel sheet and a hardness (HV2) of the inner region extending from the position of one-tenth to the position of three-tenths of the thickness of the steel sheet is 5% or more and 15% or less of $[0.3 \times \text{tensile strength (MPa)}]$, and the steel sheet has a tensile strength of 980 MPa or more, a uniform elongation of 6% or more, and a ratio R/t of a critical bending radius R to a thickness t of 1.5 or less.

IPC 8 full level
C21D 8/02 (2006.01); **C21D 1/02** (2006.01); **C21D 9/46** (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/08** (2006.01); **C22C 38/12** (2006.01); **C22C 38/16** (2006.01); **C22C 38/32** (2006.01); **C22C 38/38** (2006.01); **C22C 38/60** (2006.01)

CPC (source: EP KR US)
C21D 1/02 (2013.01 - EP); **C21D 1/84** (2013.01 - US); **C21D 6/001** (2013.01 - US); **C21D 6/002** (2013.01 - US); **C21D 6/005** (2013.01 - US); **C21D 6/008** (2013.01 - US); **C21D 8/0205** (2013.01 - EP US); **C21D 8/0226** (2013.01 - EP KR US); **C21D 8/0247** (2013.01 - US); **C21D 8/0263** (2013.01 - EP KR); **C21D 9/46** (2013.01 - EP KR US); **C22C 38/001** (2013.01 - KR US); **C22C 38/002** (2013.01 - EP US); **C22C 38/005** (2013.01 - US); **C22C 38/02** (2013.01 - EP KR US); **C22C 38/04** (2013.01 - EP KR US); **C22C 38/06** (2013.01 - EP KR US); **C22C 38/08** (2013.01 - EP US); **C22C 38/12** (2013.01 - EP US); **C22C 38/14** (2013.01 - US); **C22C 38/16** (2013.01 - EP US); **C22C 38/28** (2013.01 - US); **C22C 38/32** (2013.01 - EP US); **C22C 38/38** (2013.01 - EP KR US); **C22C 38/58** (2013.01 - KR); **C22C 38/60** (2013.01 - EP US); **C21D 2211/001** (2013.01 - EP US); **C21D 2211/002** (2013.01 - EP KR US); **C21D 2211/008** (2013.01 - EP US)

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• [X1] JP 2002129286 A 20020509 - NIPPON STEEL CORP
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• See also references of WO 202209839A1

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