

Title (en)
STEEL SHEET

Title (de)
STAHLBLECH

Title (fr)
TÔLE D'ACIER

Publication
EP 4123046 B1 20240501 (EN)

Application
EP 21772047 A 20210309

Priority
• JP 2020049120 A 20200319
• JP 2021009279 W 20210309

Abstract (en)
[origin: EP4123046A1] This steel sheet has a predetermined chemical composition, Ex. C that is obtained by Ex. C = (%C) - 12{ (%Ti*)/48 + (%V)/51 + (%Nb)/93 + (%Mo)/96 + (%W)/184} is 0.020% or less, a microstructure at a 1/4 depth position of a sheet thickness from a surface contains 60% or more of ferrite, 0% to 5% of MA and a total of 0% to 5% of pearlite and cementite with a remainder of bainite in terms of area fractions, in the microstructure, the average crystal grain diameter is 10.0 μm or less, the average aspect ratio of crystal grains is 0.30 or more, the standard deviation of a Mn concentration is 0.60 mass% or less, a Ti-based carbide having a Baker-Nutting orientation relationship in the ferrite is precipitated in a semi-coherent state, and a tensile strength is 980 MPa or more.

IPC 8 full level
C22C 38/00 (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/12** (2006.01); **C22C 38/14** (2006.01); **C22C 38/28** (2006.01); **C22C 38/32** (2006.01); **C22C 38/38** (2006.01); **C23C 2/02** (2006.01); **C23C 2/06** (2006.01); **C23C 2/28** (2006.01); **C23C 2/40** (2006.01); **C21D 1/02** (2006.01); **C21D 8/02** (2006.01); **C21D 9/46** (2006.01)

CPC (source: EP KR US)
C21D 8/0226 (2013.01 - KR); **C21D 9/46** (2013.01 - KR); **C22C 38/002** (2013.01 - EP US); **C22C 38/005** (2013.01 - EP); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP); **C22C 38/06** (2013.01 - KR US); **C22C 38/12** (2013.01 - EP); **C22C 38/14** (2013.01 - EP); **C22C 38/28** (2013.01 - EP); **C22C 38/32** (2013.01 - EP); **C22C 38/34** (2013.01 - KR); **C22C 38/38** (2013.01 - EP); **C22C 38/42** (2013.01 - KR US); **C22C 38/44** (2013.01 - KR US); **C22C 38/46** (2013.01 - KR US); **C22C 38/48** (2013.01 - US); **C22C 38/50** (2013.01 - US); **C22C 38/54** (2013.01 - US); **C22C 38/58** (2013.01 - KR); **C23C 2/02** (2013.01 - EP); **C23C 2/04** (2013.01 - US); **C23C 2/06** (2013.01 - EP KR); **C23C 2/28** (2013.01 - EP); **C23C 2/40** (2013.01 - EP); **C21D 1/02** (2013.01 - EP); **C21D 8/0205** (2013.01 - EP); **C21D 8/0226** (2013.01 - EP); **C21D 8/0263** (2013.01 - EP); **C21D 9/46** (2013.01 - EP); **C21D 2211/001** (2013.01 - EP); **C21D 2211/002** (2013.01 - EP KR); **C21D 2211/003** (2013.01 - KR); **C21D 2211/004** (2013.01 - EP); **C21D 2211/005** (2013.01 - EP KR); **C21D 2211/009** (2013.01 - KR)

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