

Title (en)

HOT ROLLED STEEL SHEET AND PRODUCTION METHOD THEREOF

Title (de)

WARMGEWALZTES STAHLBLECH UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

TÔLE D'ACIER LAMINÉE À CHAUD ET PROCÉDÉ DE PRODUCTION CORRESPONDANT

Publication

EP 4056723 A4 20231018 (EN)

Application

EP 20884487 A 20201012

Priority

- JP 2019201427 A 20191106
- JP 2020038468 W 20201012

Abstract (en)

[origin: EP4056723A1] This hot-rolled steel sheet has a predetermined chemical composition, in which a microstructure contains, by area%, bainite: 80.0% or more, ferrite: 10.0% or less, and a remainder in the microstructure: 10.0% or less, a total density of a length $L_{<\text{sub}>7}</\text{sub}>$ of a grain boundary having a crystal orientation difference of 7° and a length $L_{<\text{sub}>68}</\text{sub}>$ of a grain boundary having a crystal orientation difference of 68° about a $<110>$ direction in the bainite is 0.35 to 0.60 $\mu\text{m}/\mu\text{m}^{<2>}</sup>$, and a tensile strength is 780 MPa or more.

IPC 8 full level

C21D 8/02 (2006.01); **B21B 37/74** (2006.01); **C21D 1/19** (2006.01); **C21D 9/46** (2006.01); **C22C 38/00** (2006.01); **C22C 38/28** (2006.01);
C22C 38/50 (2006.01); **C22C 38/58** (2006.01)

CPC (source: CN EP KR US)

B21B 3/02 (2013.01 - US); **B21B 37/74** (2013.01 - CN); **C21D 1/19** (2013.01 - EP); **C21D 6/001** (2013.01 - US); **C21D 6/002** (2013.01 - US);
C21D 6/005 (2013.01 - US); **C21D 6/007** (2013.01 - US); **C21D 6/008** (2013.01 - US); **C21D 8/0205** (2013.01 - CN); **C21D 8/021** (2013.01 - EP);
C21D 8/0226 (2013.01 - CN EP KR); **C21D 8/0247** (2013.01 - KR); **C21D 9/46** (2013.01 - EP KR US); **C22C 38/001** (2013.01 - US);
C22C 38/002 (2013.01 - CN US); **C22C 38/005** (2013.01 - CN US); **C22C 38/02** (2013.01 - CN EP US); **C22C 38/04** (2013.01 - CN EP);
C22C 38/06 (2013.01 - CN EP US); **C22C 38/08** (2013.01 - US); **C22C 38/14** (2013.01 - EP); **C22C 38/16** (2013.01 - US);
C22C 38/22 (2013.01 - US); **C22C 38/24** (2013.01 - US); **C22C 38/26** (2013.01 - US); **C22C 38/28** (2013.01 - EP US); **C22C 38/32** (2013.01 - US);
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C22C 38/54 (2013.01 - CN KR); **C22C 38/58** (2013.01 - CN KR); **C21D 1/02** (2013.01 - EP); **C21D 2211/002** (2013.01 - CN EP KR US);
C21D 2211/005 (2013.01 - CN KR US); **C22C 38/002** (2013.01 - EP); **C22C 38/005** (2013.01 - EP); **C22C 38/08** (2013.01 - EP);
C22C 38/12 (2013.01 - EP); **C22C 38/16** (2013.01 - EP); **C22C 38/22** (2013.01 - EP); **C22C 38/24** (2013.01 - EP); **C22C 38/26** (2013.01 - EP);
C22C 38/32 (2013.01 - EP); **C22C 38/38** (2013.01 - EP)

Citation (search report)

- [A] WO 2013150687 A1 20131010 - NIPPON STEEL & SUMITOMO METAL CORP [JP]
- [A] EP 2812455 A1 20141217 - ASCOMETAL SA [FR], et al

Designated contracting state (EPC)

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JP WO2021090642 A1 20210514; KR 20220068250 A 20220525; MX 2022004885 A 20220516; US 2022259692 A1 20220818;
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EP 20884487 A 20201012; CN 202080074990 A 20201012; JP 2020038468 W 20201012; JP 2021554855 A 20201012;
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