

Title (en)

A COLD ROLLED MARTENSITIC STEEL AND A METHOD OF MARTENSITIC STEEL THEREOF

Title (de)

KALTGEWALTZTER MARTENSITISCHER STAHL UND VERFAHREN FÜR MARTENSITISCHEN STAHL

Title (fr)

ACIER MARTENSITIQUE LAMINÉ À FROID ET PROCÉDÉ D'ACIER MARTENSITIQUE S'Y RAPPORTANT

Publication

**EP 3983568 A1 20220420 (EN)**

Application

**EP 20730759 A 20200605**

Priority

- IB 2019054901 W 20190612
- IB 2020055319 W 20200605

Abstract (en)

[origin: WO2020250098A1] A cold rolled martensitic steel sheet comprising of the following elements, 0.3 % # C # 0.4 %; 0.5 % # Mn # 1 %; 0.2% # Si # 0.6 %; 0.1% # Cr # 1 %; 0.01% # Al # 1 %; 0.01% # Mo # 0.5%; 0.001% # Ti # 0.1%; 0%#S#0.09%; 0% #P# 0.09%; 0%#N# 0.09%; 0% # Nb # 0.1%; 0% # V# 0.1%; 0% # Ni # 1%; 0% # Cu # 1%; 0% # B # 0.05%; 0.001% # Ca# 0.01%; 0% #Sn# 0.1%; 0% # Pb# 0.1%; 0% # Sb# 0.1%; the remainder composition being composed of iron and unavoidable impurities caused by processing, the microstructure of steel, by area percentage, at least 95% of martensite, a cumulated amount of ferrite and bainite between 1 % and 5%, and an optional amount of residual austenite between 0% and 2%.

IPC 8 full level

**C21D 1/22** (2006.01); **C21D 8/02** (2006.01); **C22C 38/22** (2006.01); **C22C 38/28** (2006.01); **C22C 38/44** (2006.01); **C22C 38/50** (2006.01)

CPC (source: EP KR US)

**C21D 1/22** (2013.01 - EP); **C21D 8/0205** (2013.01 - US); **C21D 8/0226** (2013.01 - EP KR US); **C21D 8/0236** (2013.01 - EP KR US); **C21D 8/0247** (2013.01 - EP); **C21D 8/0273** (2013.01 - EP KR); **C21D 9/46** (2013.01 - KR); **C22C 38/001** (2013.01 - KR US); **C22C 38/002** (2013.01 - US); **C22C 38/02** (2013.01 - US); **C22C 38/06** (2013.01 - US); **C22C 38/22** (2013.01 - EP); **C22C 38/28** (2013.01 - EP); **C22C 38/42** (2013.01 - KR US); **C22C 38/44** (2013.01 - EP KR US); **C22C 38/46** (2013.01 - US); **C22C 38/48** (2013.01 - US); **C22C 38/50** (2013.01 - EP KR US); **C22C 38/54** (2013.01 - US); **C22C 38/58** (2013.01 - US); **C22C 38/60** (2013.01 - KR); **C21D 2211/001** (2013.01 - EP); **C21D 2211/002** (2013.01 - EP US); **C21D 2211/005** (2013.01 - EP US); **C21D 2211/008** (2013.01 - EP KR US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2020250098 A1 20201217**; BR 112021021695 A2 20211221; CA 3139633 A1 20201217; CN 113811624 A 20211217; CN 113811624 B 20231020; EP 3983568 A1 20220420; JP 2022537932 A 20220831; KR 20220005572 A 20220113; MA 56172 A 20220420; MX 2021015171 A 20220118; US 2022298614 A1 20220922; WO 2020250009 A1 20201217; ZA 202108295 B 20220831

DOCDB simple family (application)

**IB 2020055319 W 20200605**; BR 112021021695 A 20200605; CA 3139633 A 20200605; CN 202080033667 A 20200605; EP 20730759 A 20200605; IB 2019054901 W 20190612; JP 2021573436 A 20200605; KR 20217039946 A 20200605; MA 56172 A 20200605; MX 2021015171 A 20200605; US 202017616737 A 20200605; ZA 202108295 A 20211027