

Title (en)

METHOD AND DEVICE FOR MANUFACTURING MARTENSITE-CONTAINING STEEL SHEET

Title (de)

VERFAHREN UND VORRICHTUNG ZUR HERSTELLUNG EINES MARTENSITHALTIGEN STAHLBLECHS

Title (fr)

PROCÉDÉ ET DISPOSITIF DE FABRICATION DE TÔLE D'ACIER CONTENANT DE LA MARTENSITE

Publication

EP 3395964 A4 20181226 (EN)

Application

EP 16879266 A 20161216

Priority

- KR 20150183266 A 20151221
- KR 2016014817 W 20161216

Abstract (en)

[origin: EP3395964A1] The present invention relates to a method and a device for manufacturing a martensite-containing steel sheet, the method comprising the steps of: preparing, in a coil shape, a steel sheet in which at least one part of austenite is transformed into martensite during water cooling; heating the steel sheet coil such that at least one part of the microstructure of the steel sheet becomes austenite; and unwinding the heated steel sheet coil, and water-cooling the steel sheet at a cooling speed of 500 °C/sec or more while transferring the steel sheet at a transferring speed of 300 mpm or more, so as to transform the at least one part of austenite into the martensite.

IPC 8 full level

C21D 8/02 (2006.01); **C21D 9/46** (2006.01); **C21D 9/54** (2006.01); **C21D 9/68** (2006.01); **C21D 11/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01)

CPC (source: EP)

C21D 1/18 (2013.01); **C21D 1/185** (2013.01); **C21D 1/60** (2013.01); **C21D 1/63** (2013.01); **C21D 8/0205** (2013.01); **C21D 8/0247** (2013.01); **C21D 9/0043** (2013.01); **C21D 9/46** (2013.01); **C21D 9/54** (2013.01); **C21D 9/68** (2013.01); **C22C 38/02** (2013.01); **C22C 38/04** (2013.01); **C21D 1/74** (2013.01); **C21D 2211/008** (2013.01)

Citation (search report)

- [I] JP 2015188897 A 20151102 - JFE STEEL CORP
- [I] US 4415382 A 19831115 - GASKEY KENNETH M [US], et al
- [I] US 2015010779 A1 20150108 - SZESNI ANIKA [DE], et al
- [I] US 2010237548 A1 20100923 - OKADA RIE [JP], et al
- [A] US 2002104597 A1 20020808 - FRANK WILLIAM R [US], et al
- [A] EP 2792756 A1 20141022 - POSCO [KR]
- See references of WO 2017111399A1

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)

EP 3395964 A1 20181031; **EP 3395964 A4 20181226**; CN 108431249 A 20180821; JP 2019505667 A 20190228; KR 20170089045 A 20170803; WO 2017111399 A1 20170629

DOCDB simple family (application)

EP 16879266 A 20161216; CN 201680074983 A 20161216; JP 2018532216 A 20161216; KR 20150183266 A 20151221; KR 2016014817 W 20161216