

Title (en)

METHOD FOR MANUFACTURING ULTRA-LOW CARBON STEEL PRODUCT

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES STAHLPRODUKTS MIT EXTREM NIEDRIGEM KOHLENSTOFFGEHALT

Title (fr)

PROCÉDÉ DE FABRICATION D'UN PRODUIT EN ACIER À ULTRA-BASSE TENEUR EN CARBONE

Publication

EP 4151755 A1 20230322 (EN)

Application

EP 21837995 A 20210705

Priority

- JP 2020117921 A 20200708
- JP 2021025374 W 20210705

Abstract (en)

Provided is a method for producing an ultra-low carbon steel product in which, even if bubbles are captured in a solidified shell, occurrence of blister defects can be suppressed in a hot rolling step and subsequent steps. A method for producing an ultra-low carbon steel product having a carbon concentration of 0.005% by mass or less includes, at least, a step of adjusting a carbon concentration of molten iron to obtain molten steel, a step of casting the molten steel into a slab, and a step of hot rolling the slab to obtain a hot-rolled steel sheet, in which the method further includes a width reduction step of performing width reduction on the slab with a reduction amount which is predetermined in accordance with the slab width in a direction orthogonal to the rolling direction of the slab.

IPC 8 full level

C21C 7/068 (2006.01); **B21B 1/02** (2006.01); **B22D 11/00** (2006.01); **C22C 38/00** (2006.01); **C22C 38/04** (2006.01)

CPC (source: EP KR US)

B21B 1/02 (2013.01 - KR); **B22D 1/002** (2013.01 - EP); **B22D 11/001** (2013.01 - EP); **B22D 11/117** (2013.01 - EP); **B22D 11/1206** (2013.01 - EP); **B22D 11/128** (2013.01 - KR); **C21C 7/068** (2013.01 - EP KR); **C21D 8/0205** (2013.01 - EP); **C21D 8/0226** (2013.01 - KR US); **C21D 8/0236** (2013.01 - EP KR US); **C21D 9/46** (2013.01 - EP US); **C22C 38/004** (2013.01 - EP KR US); **C22C 38/04** (2013.01 - EP KR)

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

EP 4151755 A1 20230322; **EP 4151755 A4 20230920**; CN 115803126 A 20230314; JP 7452656 B2 20240319; JP WO2022009849 A1 20220113; KR 20230022213 A 20230214; TW 202210187 A 20220316; TW I778702 B 20220921; US 2023287543 A1 20230914; WO 2022009849 A1 20220113

DOCDB simple family (application)

EP 21837995 A 20210705; CN 202180047165 A 20210705; JP 2021025374 W 20210705; JP 2022535325 A 20210705; KR 20237000489 A 20210705; TW 110125101 A 20210708; US 202118013326 A 20210705