

Title (en)

METHOD FOR MANUFACTURING HOT ROLLED STEEL STRIP PRODUCT, AND HOT ROLLED STEEL STRIP PRODUCT

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES WARMGEWALZEN STAHLBANDES UND WARMGEWALZTES STAHLBAND PRODUKT

Title (fr)

PROCÉDÉ DE LA FABRICATION D'UNE BANDE D'ACIER LAMINÉE À CHAUD ET LE PRODUIT DE LA BANDE D'ACIER LAMINÉE À CHAUD

Publication

**EP 2430199 B1 20190529 (EN)**

Application

**EP 10727754 A 20100416**

Priority

- FI 2010050310 W 20100416
- FI 20095528 A 20090511

Abstract (en)

[origin: WO2010130871A1] The invention relates to a method for manufacturing a hot-rolled steel strip product with a thickness of 2 - 12 mm from low-alloy steel having a carbon content of 0.04 - 0.08 in percentage by weight and containing niobium and titanium. In order to obtain good mechanical properties, with bending properties included, for the steel strip product, a work piece of steel is austenized at an austenizing temperature of 1200 - 1350°C, the steel work piece is hot-rolled at a pre-rolling step, the pre-rolled steel work piece is rolled in a strip roll mill so that a rolling temperature of 760 - 960°C is achieved for the work piece in the last pass, and the steel strip is direct quenched after the last pass in the strip roll mill by a single-step cooling at a cooling rate of 30 - 150°C/s to a temperature of 3000C at the most, the direct quenching being carried out within 15s from the last pass. The invention also relates to a steel strip product.

IPC 8 full level

**C21D 8/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/12** (2006.01); **C22C 38/14** (2006.01)

CPC (source: EP FI)

**C21D 8/021** (2013.01 - EP FI); **C21D 8/0226** (2013.01 - EP FI); **C21D 8/10** (2013.01 - FI); **C22C 38/04** (2013.01 - EP FI);  
**C22C 38/12** (2013.01 - EP FI); **C22C 38/14** (2013.01 - EP FI); **C21D 1/19** (2013.01 - EP); **C21D 2211/002** (2013.01 - EP);  
**C21D 2211/005** (2013.01 - EP)

Designated contracting state (EPC)

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 SE SI SK SM TR

DOCDB simple family (publication)

**WO 2010130871 A1 20101118**; CN 102439179 A 20120502; CN 102439179 B 20150325; EP 2430199 A1 20120321; EP 2430199 B1 20190529;  
ES 2738876 T3 20200127; FI 20095528 A0 20090511; FI 20095528 A 20101112; PL 2430199 T3 20191231; RU 2011149763 A 20130620;  
RU 2535890 C2 20141220; TR 201910938 T4 20190821

DOCDB simple family (application)

**FI 2010050310 W 20100416**; CN 201080020753 A 20100416; EP 10727754 A 20100416; ES 10727754 T 20100416; FI 20095528 A 20090511;  
PL 10727754 T 20100416; RU 2011149763 A 20100416; TR 201910938 T 20100416