

Title (en)

ROLLING EQUIPMENT AND METHOD FOR OPERATING ROLLING DEVICE

Title (de)

WALZVORRICHTUNG UND WALZVORRICHTUNGSBETRIEBSVERFAHREN

Title (fr)

DISPOSITIF DE LAMINAGE ET PROCÉDÉ DE FONCTIONNEMENT D'UN DISPOSITIF DE LAMINAGE

Publication

**EP 3715002 B1 20220615 (EN)**

Application

**EP 19739502 A 20190129**

Priority

JP 2019002884 W 20190129

Abstract (en)

[origin: EP3715002A1] A control device for controlling a rolling device which includes a pair of rolling mill rolls provided to sandwich a metal strip and an unwinding device uncoiling the metal strip at an entrance side of the rolling mill rolls in a traveling direction of the metal strip and which is configured to roll the metal strip by the pair of rolling mill rolls is configured to: after passing a tip part of the metal strip through the pair of rolling mill rolls in a state where a gap between the pair of rolling mill rolls is larger than a strip thickness of the metal strip, press the metal strip by the pair of rolling mill rolls in a state where exit-side tension applied to the metal strip is zero; make entrance-side tension applied to the metal strip by the unwinding device become larger than zero; and start rotation of the pair of rolling mill rolls.

IPC 8 full level

**B21C 47/00** (2006.01); **B21B 1/32** (2006.01); **B21B 37/48** (2006.01); **B21B 37/54** (2006.01)

CPC (source: EP)

**B21B 1/32** (2013.01); **B21B 37/48** (2013.01); **B21B 37/54** (2013.01); **B21C 47/00** (2013.01); **B21B 2015/0057** (2013.01);  
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**B21B 2275/04** (2013.01); **B21B 2275/06** (2013.01)

Citation (opposition)

Opponent : SMS group GmbH

- CN 104785532 A 20150722 - SHANDONG IRON & STEEL CO LTD
- US 6014882 A 20000118 - BERGER BERND [DE], et al
- JP 2006334647 A 20061214 - JP STEEL PLANTECH CO
- RU 2156667 C1 20000927 - TJAZHELOGO MASH, et al
- CN 107052049 A 20170818 - ZHEJIANG XIEHE CERAM CO LTD
- JP 2000280014 A 20001010 - HITACHI LTD

Cited by

EP4257256A4

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

DOCDB simple family (publication)

**EP 3715002 A1 20200930; EP 3715002 A4 20200930; EP 3715002 B1 20220615;** CN 112334243 A 20210205; CN 112334243 B 20220913;  
JP 7119130 B2 20220816; JP WO2020157819 A1 20211007; WO 2020157819 A1 20200806

DOCDB simple family (application)

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