

Title (en)

METHOD AND SYSTEM FOR THERMALLY TREATING ELONGATE, FLAT METALLIC MATERIAL, IN PARTICULAR ALUMINUM ROLLED INGOTS, IN A RING HEARTH FURNACE

Title (de)

VERFAHREN UND ANLAGE ZUR THERMISCHEN BEHANDLUNG VON LANGGESTRECKTEM, FLACHEM METALLISCHEN GUT, INSBESONDERE ALUMINIUM-WALZBARREN, IN EINEM RINGHERDOFEN

Title (fr)

PROCÉDÉ ET INSTALLATION DE TRAITEMENT THERMIQUE D'UN PRODUIT MÉTALLIQUE PLAT ÉTIRÉ EN LONGUEUR, NOTAMMENT DE BARRES DE LAMINAGE EN ALUMINIUM, DANS UN FOUR À SOLE ANNULAIRE

Publication

EP 3110981 B1 20181010 (DE)

Application

EP 15711059 A 20150226

Priority

- DE 102014203494 A 20140226
- DE 102015203376 A 20150225
- EP 2015054016 W 20150226

Abstract (en)

[origin: WO2015128416A1] The invention relates to a method and to a system for thermally treating elongate, flat metallic material, in particular aluminum rolled ingots (2), in a furnace, a ring hearth furnace (1) being used as the furnace, said ring hearth furnace having a rotary-driven ring hearth floor (7a) between a thermally insulated outer housing (3) and a thermally insulated inner housing (4), said ring hearth floor being sealed off from the housing (3, 4), and at least one closable charging and discharging opening (15; 15a, 15b). For convection-heating of the aluminum rolled ingots (2) introduced into the ring hearth furnace (1), air, which is sucked upwards by circulation fans (19), which are provided on the ceiling side and distributed over the circumference of the ceiling (6), out of the ring hearth interior (1a), which is enclosed by the outer and inner housing (3, 4), is first conducted along heating means (20a, 20b; 21), which are arranged on the ceiling side and project into the hearth interior (12) and then flows into pressure ducts (22), which extend on the inner walls of the outer and inner housing (3, 4) and from which the air, which is increasingly heated up during the heat-up phase, is blown at the aluminum rolled ingots (2) via slot nozzles (23) in order to heat the aluminum rolled ingots (2).

IPC 8 full level

C21D 9/00 (2006.01); **F27B 9/10** (2006.01); **F27B 9/16** (2006.01); **F27D 7/04** (2006.01)

CPC (source: CN EP)

C21D 9/0037 (2013.01 - CN EP); **C22F 1/04** (2013.01 - CN); **F27B 9/10** (2013.01 - CN EP); **F27B 9/16** (2013.01 - CN EP); **F27D 7/04** (2013.01 - CN EP)

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)

DE 102015203376 A1 20150827; CN 106170568 A 20161130; CN 106170568 B 20180413; EP 3110981 A1 20170104; EP 3110981 B1 20181010; WO 2015128416 A1 20150903

DOCDB simple family (application)

DE 102015203376 A 20150225; CN 201580010594 A 20150226; EP 15711059 A 20150226; EP 2015054016 W 20150226