

Title (en)

METHOD FOR REGULATING A TEMPERATURE OF A STRAND BY POSITIONING A MOBILE COOLING NOZZLE IN A STRAND GUIDE OF A STRAND CASTING SYSTEM

Title (de)

VERFAHREN ZUR REGELUNG EINER TEMPERATUR EINES STRANGS DURCH DAS POSITIONIEREN EINER VERFAHRBAREN KÜHLDÜSE IN EINER STRANGFÜHRUNG EINER STRANGGIESSANLAGE

Title (fr)

PROCÉDÉ DE RÉGULATION D'UNE TEMPÉRATURE D'UNE BARRE DE COULÉE PAR POSITIONNEMENT D'UNE BUSE DE REFROIDISSEMENT DÉPLAÇABLE DANS UN DISPOSITIF DE GUIDAGE DE BARRES DE COULÉE D'UNE INSTALLATION DE COULÉE CONTINUE

Publication

EP 2673099 B1 20171206 (DE)

Application

EP 11805854 A 20111223

Priority

- EP 11153465 A 20110207
- EP 2011073939 W 20111223
- EP 11805854 A 20111223

Abstract (en)

[origin: WO2012107143A1] The invention relates to a method for regulating a temperature (16), or a temperature profile (21), of a strand (1) by positioning a movable cooling nozzle (4) in a strand guide of a strand casting system. The aim of the invention is to optimize a regulating method by positioning a movable cooling nozzle (4) so that as precise a temperature control of the strand (1) as possible can be achieved, even under starkly different operational conditions in the strand casting system. Said aim is achieved by a method comprising the following method steps: determining at least one temperature value T (16) of the strand (1) in a direction that is transverse to the casting direction (9) of the strand (1); determining a control error e (14) by subtracting the temperature value T (16) from a target temperature TSoll (17) of the strand (1), that is, $e = T_{\text{Soll}} - T$; calculating a control variable r (15) based on the control error e (14) and applying a control law; and positioning the cooling nozzle (4) in a direction that is transverse to the casting direction (9) of the strand (1) based on the control variable r (15) so that the control error e (14) is minimized.

IPC 8 full level

B22D 11/124 (2006.01); **B22D 11/16** (2006.01); **B22D 11/22** (2006.01)

CPC (source: EP KR)

B22D 11/124 (2013.01 - EP KR); **B22D 11/16** (2013.01 - EP KR); **B22D 11/22** (2013.01 - KR); **B22D 11/225** (2013.01 - 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)

WO 2012107143 A1 20120816; CN 103347626 A 20131009; CN 103347626 B 20150722; DE 112011104849 A5 20131107;
DE 112011104849 B4 20190509; EP 2673099 A1 20131218; EP 2673099 B1 20171206; KR 101806819 B1 20171208;
KR 20140004742 A 20140113

DOCDB simple family (application)

EP 2011073939 W 20111223; CN 201180067033 A 20111223; DE 112011104849 T 20111223; EP 11805854 A 20111223;
KR 20137022823 A 20111223