

Title (en)

METHOD AND DEVICE FOR COOLING THE COPPER PLATES OF A CONTINUOUS CASTING INGOT MOULD FOR LIQUID METALS, ESPECIALLY LIQUID STEEL

Title (de)

VERFAHREN UND EINRICHTUNG ZUM KÜHLEN DER KUPFERPLATTEN EINER STRANGGIESSKOKILLE FÜR FLÜSSIGE METALLE, INSBESONDERE FÜR FLÜSSIGEN STAHL

Title (fr)

PROCEDE ET DISPOSITIF DE REFOIDISSEMENT DES PLAQUES DE CUIVRE D'UNE COQUILLE POUR LA COULEE CONTINUE DE METAUX LIQUIDES, EN PARTICULIER D'ACIER LIQUIDE

Publication

EP 1432539 A2 20040630 (DE)

Application

EP 02777034 A 20020907

Priority

- DE 10148135 A 20010928
- DE 10160739 A 20011211
- EP 0210030 W 20020907

Abstract (en)

[origin: WO03028921A2] The invention relates to a device for cooling the copper plates (1.1) of a continuous casting ingot mould (1) for liquid metals, especially liquid steel, comprising an ingot mould coolant (2) which is guided in cooling channels. During the initial temperature rise to achieve a set casting speed or when said casting speed is exceeded for a deviating copper plate skin temperature (8), the copper plate skin temperature (8) is influenced, even when the casting speed is higher, in such a way that surface errors in the casting shell and/or cracks in the surface of the copper plates are prevented from occurring or occur in a significantly reduced manner by adjusting the copper plate skin temperature (8) at alternating casting speeds (6) of between 1 m / min and a maximum 12 m / min by means of quantitative correction of the amount of ingot mould coolant (4) and/or ingot mould coolant inflow temperature (5) according to the casting speed (6) and according to the thickness of the copper plates (9), to a desired constant value.

IPC 1-7

B22D 1/00

IPC 8 full level

B22C 9/00 (2006.01); **B22D 11/051** (2006.01); **B22D 11/055** (2006.01); **B22D 11/108** (2006.01); **B22D 11/16** (2006.01); **B22D 11/22** (2006.01)

CPC (source: EP US)

B22D 11/055 (2013.01 - EP US); **B22D 11/22** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

WO 03028921 A2 20030410; **WO 03028921 A3 20031023**; AT E324953 T1 20060615; BR 0212935 A 20041013; CA 2460897 A1 20030410; CN 1561273 A 20050105; DE 50206693 D1 20060608; EP 1432539 A2 20040630; EP 1432539 B1 20060503; HU P0402138 A2 20050228; JP 2005503927 A 20050210; MX PA04002744 A 20040729; PL 367404 A1 20050221; RU 2004113105 A 20050520; US 2004256078 A1 20041223

DOCDB simple family (application)

EP 0210030 W 20020907; AT 02777034 T 20020907; BR 0212935 A 20020907; CA 2460897 A 20020907; CN 02819136 A 20020907; DE 50206693 T 20020907; EP 02777034 A 20020907; HU P0402138 A 20020907; JP 2003532228 A 20020907; MX PA04002744 A 20020907; PL 36740402 A 20020907; RU 2004113105 A 20020907; US 49103504 A 20040813