

Title (en)

CONTROLLING THE NARROW-SIDE CONICITY OF A CONTINUOUS CASTING MOULD: METHOD AND DEVICE

Title (de)

REGELUNG DER SCHMALSEITENKONIZITÄT EINER STRANGGUSSKOKILLE : VERFAHREN UND VORRICHTUNG

Title (fr)

RÉGLAGE DE LA CONICITÉ DE PETIT CÔTÉ D'UNE LINGOTIÈRE DE COULÉE CONTINUE, PROCÉDÉ ET DISPOSITIF

Publication

EP 3515634 A1 20190731 (DE)

Application

EP 17771449 A 20170921

Priority

- AT 508562016 A 20160926
- EP 2017073914 W 20170921

Abstract (en)

[origin: WO2018055038A1] Controlling the narrow-side taper of a continuous casting mould. The invention relates to a method and a device for controlling the narrow-side conicity of a continuous casting mould on the basis of measuring the forces applied to the narrow sides with the aid of actuators. To achieve a narrow-side conicity that is as optimum as possible, with which the temperature-induced shrinkage of the metal strand is compensated as precisely as possible, and thus contact with the metal strand is established over as large an area as possible, by placing the narrow side plates against the cast metal strand, the invention proposes a closed-loop control circuit of which the system deviation is based on measuring the forces occurring at the actuators during the continuous casting. By means of suitable parameterization of the controlled variable, the control specification and filters of the closed-loop control circuit, a very rapid and reliable control behaviour can be obtained. Double-acting hydraulic cylinders are proposed as actuators for a device according to the invention.

IPC 8 full level

B22D 11/16 (2006.01)

CPC (source: AT EP)

B22D 11/05 (2013.01 - AT); **B22D 11/168** (2013.01 - AT EP)

Citation (search report)

See references of WO 2018055038A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2018055038 A1 20180329; AT 519154 A1 20180415; AT 519154 B1 20191215; BR 112019003906 A2 20190521; BR 112019003906 B1 20221220; EP 3515634 A1 20190731; EP 3515634 B1 20200610

DOCDB simple family (application)

EP 2017073914 W 20170921; AT 508562016 A 20160926; BR 112019003906 A 20170921; EP 17771449 A 20170921