

Title (en)
METHOD AND DEVICE FOR CONTROLLING AND/OR MAINTAINING THE TEMPERATURE OF A MELT, PREFERABLY OF A STEEL MELT DURING CONTINUOUS CASTING

Title (de)
VERFAHREN UND VORRICHTUNG ZUM EINSTELLEN UND/ODER HALTEN DER TEMPERATUR EINER SCHMELZE, BEVORZUGT EINER STAHLSCHELZE BEIM STRANGGIESSEN

Title (fr)
PROCEDE ET DISPOSITIF POUR REGLER ET/OU MAINTENIR LA TEMPERATURE D'UNE MASSE EN FUSION, EN PARTICULIER D'ACIER EN FUSION LORS DE LA COULEE EN CONTINU

Publication
EP 1140391 B1 20030618 (DE)

Application
EP 00901067 A 20000107

Priority
• DE 19900915 A 19990113
• EP 0000058 W 20000107

Abstract (en)
[origin: US6474404B1] The invention relates to a method for controlling the temperature of a melt (10), preferably of a steel melt, in a distributing vessel (11), whereby the temperature of the melt is measured, the measured result is compared with a predetermined temperature range in the form of specified values, and as much heat is supplied or withdrawn from the melt such that the temperature remains inside said range. In order to control the melt temperature, a fireproof shaped part (20) which is closed on both sides and which is provided for accommodating a liquid cooled induction coil (1) is immersed in the melt (10). The transmission of heat is carried out by means of thermal conduction out of the wall of the shaped part (20) which is coupled to the induced electromagnetic field and/or by means of a direct coupling to the liquid melt (10). The shaped part (20) accommodates the induction coil (1) in an interchangeable manner while leaving cooling channels (9) open and is positioned from the outside by a manipulator (16) which can be lifted, lowered and tuned.

IPC 1-7
B22D 11/10; **B22D 41/005**; **B22D 41/015**; **H05B 6/38**; **B22D 11/16**

IPC 8 full level
B22D 11/10 (2006.01); **B22D 2/00** (2006.01); **B22D 11/11** (2006.01); **B22D 11/16** (2006.01); **B22D 41/005** (2006.01); **B22D 41/015** (2006.01); **H05B 6/38** (2006.01)

CPC (source: EP KR US)
B22D 11/10 (2013.01 - KR); **B22D 11/11** (2013.01 - EP US); **B22D 11/16** (2013.01 - EP US); **B22D 41/005** (2013.01 - EP US); **B22D 41/015** (2013.01 - EP US)

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
US 6474404 B1 20021105; AT E243083 T1 20030715; AU 2106100 A 20000801; BR 0007512 A 20011120; CA 2359339 A1 20000720; CN 1227084 C 20051116; CN 1352582 A 20020605; DE 19900915 A1 20000720; DE 50002580 D1 20030724; EA 003040 B1 20021226; EA 200100769 A1 20020425; EP 1140391 A1 20011010; EP 1140391 B1 20030618; JP 2002534271 A 20021015; KR 100653556 B1 20061204; KR 20010101431 A 20011114; MX PA01007179 A 20050701; WO 0041829 A1 20000720

DOCDB simple family (application)
US 86973901 A 20011015; AT 00901067 T 20000107; AU 2106100 A 20000107; BR 0007512 A 20000107; CA 2359339 A 20000107; CN 00802717 A 20000107; DE 19900915 A 19990113; DE 50002580 T 20000107; EA 200100769 A 20000107; EP 0000058 W 20000107; EP 00901067 A 20000107; JP 2000593430 A 20000107; KR 20017008661 A 20010709; MX PA01007179 A 20000107