

Title (en)

Apparatus for intensifying cooling in the casting of metal objects

Title (de)

Gerät zum verstärkten Kühlen beim Giessen von Werkstücken aus Metall

Title (fr)

Dispositif pour l'intensification de la puissance de refroidissement pour la coulée des pièces métalliques

Publication

**EP 0481380 B1 19960228 (EN)**

Application

**EP 91117411 A 19911011**

Priority

FI 905102 A 19901017

Abstract (en)

[origin: EP0481380A1] The invention relates to an apparatus for intensifying cooling in the casting of metal objects, particularly in vertical continuous casting from bottom to top, when the nozzle (12) of the continuous casting machine is at least at the top surrounded by a cooler (11) , which is divided into two parts by a separating member (14) provided therein. According to the invention, the cooler (11) is provided with at least one guide member (16) arranged in the cooler housing and/or connected to the separating member (14) located inside the cooler, which guide member is installed essentially at the height defined by the solidification front (15) located in the nozzle (12) of the continuous casting machine. The guide member is formed for instance of at least one guide channel (16) arranged inside the cooler housing, or of at least one aligning member connected to the separating member. <IMAGE>

IPC 1-7

**B22D 11/22**

IPC 8 full level

**B22D 11/04** (2006.01); **B22D 11/055** (2006.01); **B22D 11/14** (2006.01)

CPC (source: EP)

**B22D 11/055** (2013.01); **B22D 11/145** (2013.01)

Cited by

EP0875317A1; EP0542030A1; US5381853A

Designated contracting state (EPC)

AT BE CH DE ES FR GB IT LI SE

DOCDB simple family (publication)

**EP 0481380 A1 19920422**; **EP 0481380 B1 19960228**; AT E134543 T1 19960315; CN 1046876 C 19991201; CN 1060802 A 19920506; CN 1066365 C 20010530; CN 1166392 A 19971203; DE 69117422 D1 19960404; DE 69117422 T2 19960808; ES 2084749 T3 19960516; FI 87894 B 19921130; FI 87894 C 19930310; FI 905102 A0 19901017; FI 905102 A 19920418; JP 3276381 B2 20020422; JP H04262836 A 19920918

DOCDB simple family (application)

**EP 91117411 A 19911011**; AT 91117411 T 19911011; CN 91109722 A 19911016; CN 97102416 A 19970203; DE 69117422 T 19911011; ES 91117411 T 19911011; FI 905102 A 19901017; JP 29668691 A 19911017