

Title (en)

MELTING VESSELS PROVIDED WITH A COOLED BOTTOM ELECTRODE

Title (de)

MIT EINER GEKÜHLTEN BODENELEKTRODE VERSEHENE SCHMELZGEFÄSSE

Title (fr)

RECIPIENTS DE FUSION DOTES D'UNE ELECTRODE DE MASSE REFROIDIE

Publication

EP 1183914 B1 20070221 (DE)

Application

EP 00935164 A 20000603

Priority

- DE 19925554 A 19990604
- EP 0005068 W 20000603

Abstract (en)

[origin: DE19925554A1] The aim of the invention is to improve the cooling of the bottom electrodes (1) of metallurgical melting vessels. To this end, a cooling plate (5) is situated beneath the support plate (2) on which the contact elements (3) are supported. The cooling plate is set apart from the support plate. This forms a cooling chamber (4) through which a cooling medium flows, the cooling effect of said medium being reinforced by cooling ribs (6). Said cooling ribs are situated in the cooling chamber (4) and are welded to the support plate (2) and preferably, also to the cooling plate (5).

IPC 8 full level

H05B 7/08 (2006.01); **H05B 7/12** (2006.01); **F27B 3/10** (2006.01); **F27B 3/24** (2006.01); **F27D 9/00** (2006.01); **F27D 11/10** (2006.01);
H05B 3/03 (2006.01); **H05B 7/06** (2006.01); **F27B 3/08** (2006.01)

CPC (source: EP KR US)

F27B 3/10 (2013.01 - EP KR US); **F27B 3/24** (2013.01 - EP US); **H05B 3/03** (2013.01 - EP US); **H05B 7/06** (2013.01 - EP US);
H05B 7/12 (2013.01 - EP US); **F27B 3/085** (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 6728291 B1 20040427; AT E354929 T1 20070315; BR 0011242 A 20041103; CA 2376150 A1 20001214; CN 1175712 C 20041110;
CN 1365593 A 20020821; DE 19925554 A1 20001207; DE 50014089 D1 20070405; EG 22333 A 20021231; EP 1183914 A1 20020306;
EP 1183914 B1 20070221; ES 2281345 T3 20071001; JP 2003501791 A 20030114; KR 20020016819 A 20020306;
MX PA01012412 A 20020730; PL 352313 A1 20030811; TR 200103501 T2 20020422; WO 0076275 A1 20001214

DOCDB simple family (application)

US 98015902 A 20020228; AT 00935164 T 20000603; BR 0011242 A 20000603; CA 2376150 A 20000603; CN 00808404 A 20000603;
DE 19925554 A 19990604; DE 50014089 T 20000603; EG 20000728 A 20000603; EP 0005068 W 20000603; EP 00935164 A 20000603;
ES 00935164 T 20000603; JP 2001501612 A 20000603; KR 20017015604 A 20011204; MX PA01012412 A 20000603; PL 35231300 A 20000603;
TR 200103501 T 20000603