

Title (en)
METHOD FOR PRODUCING METAL BLOCKS OR BARS BY MELTING OFF ELECTRODES AND DEVICE FOR CARRYING OUT THIS METHOD

Title (de)
VERFAHREN ZUM HERSTELLEN VON BLÖCKEN ODER STRÄNGEN AUS METALL DURCH ABSCHMELZEN VON ELEKTRODEN SOWIE VORRICHTUNG ZU DESSEN DURCHFÜHRUNG

Title (fr)
PROCEDE DE PRODUCTION DE BLOCS ET DE BARRES DE METAL GRACE A LA FUSION D'ELECTRODES, ET DISPOSITIF PERMETTANT LA MISE EN OEUVRE DE CE PROCEDE

Publication
EP 1339885 A2 20030903 (DE)

Application
EP 01993711 A 20011109

Priority
• AT 18932000 A 20001110
• EP 0113014 W 20011109

Abstract (en)
[origin: WO0238820A2] The invention relates to a method for producing metal blocks or bars, especially from steels and Ni- and Co-base alloys, by melting off consumable electrodes in an electroconductive slag bath using alternating or direct current in a short, downwardly opening, water-cooled mould through which a current contact can be established with the slag bath. The melting current is introduced into the slag bath through the consumable electrode and through the mould in a controlled manner in terms of regulating the distribution of the current between the electrode and the mould; and is conducted back through the mould and the block and the base plate at option; the division of the currents being adjustable in a controlled manner. The proportion of the overall melting current delivered that is delivered via the consumable electrode can be chosen from between 0 and 100 %. A device for carrying out the inventive method has a short, water-cooled mould comprising a base plate and at least one current-conducting element provided in the area of the slag bath, this element being insulated in relation to the lower area of the mould which forms the remelting block; or from other current-conducting elements. The supply of the melting current from at least one current source to the consumable electrode and to at least one current-conducting element can be specifically adjusted either separately or jointly by means of a suitable arrangement. The return to the at least one current source from at least one current-conducting element of the mould and the base plate which supports the remelting block can be specifically adjusted either separately or jointly.

IPC 1-7
C22B 9/18; C22B 9/187

IPC 8 full level
B22D 23/10 (2006.01); **C22B 9/18** (2006.01); **C22B 9/187** (2006.01)

CPC (source: EP US)
B22D 23/10 (2013.01 - EP); **C22B 9/18** (2013.01 - EP US)

Citation (search report)
See references of WO 0238820A2

Designated contracting state (EPC)
BE DE FR GB IT SE

DOCDB simple family (publication)
WO 0238820 A2 20020516; WO 0238820 A3 20021212; AT 410412 B 20030425; AT A18932000 A 20020915; AU 1909002 A 20020521; DE 10154727 A1 20020523; DE 50113765 D1 20080430; EP 1339885 A2 20030903; EP 1339885 B1 20080319; EP 1339885 B2 20101103; JP 2004522850 A 20040729; JP 3902133 B2 20070404; US 2004026380 A1 20040212; US 6853672 B2 20050208

DOCDB simple family (application)
EP 0113014 W 20011109; AT 18932000 A 20001110; AU 1909002 A 20011109; DE 10154727 A 20011109; DE 50113765 T 20011109; EP 01993711 A 20011109; JP 2002541132 A 20011109; US 41617403 A 20030508