

Title (en)

METHOD AND INDUCTION FURNACE FOR MELTING A METALLIC OR METAL-CONTAINING BULK MATERIAL IN THE SHAPE OF SMALL PIECES

Title (de)

VERFAHREN UND INDUKTIONSOFEN ZUM SCHMELZEN VON KLEINSTÜCKIGEM METALL- UND/ODER METALLHALTIGEM SCHÜTTGUT

Title (fr)

PROCEDE ET FOUR A INDUCTION POUR FAIRE FONDRE UN PRODUIT EN VRAC EN PETITS MORCEAUX, EN METAL ET/OU A BASE DE METAL

Publication

EP 1055354 A1 20001129 (DE)

Application

EP 99908749 A 19990122

Priority

- DE 9900192 W 19990122
- DE 19805644 A 19980212

Abstract (en)

[origin: DE19805644A1] The present invention relates to a method as well as to an induction furnace for continuously melting a metallic or metal-containing bulk material in the shape of small pieces. The metallic bulk material is supplied from the top onto the melt located in the vessel of the furnace. An stirring movement is applied to the melt located in the upper area using an alternating field produced by a first magnetic coil (induction coil 11) which is arranged around the furnace vessel. Heat is simultaneously supplied to the melt, used as a short-circuited secondary winding, in the lower region of the induction-furnace crucible (13) about the iron core (16) of a low-frequency transformer.

IPC 1-7

H05B 6/34; H05B 6/20

IPC 8 full level

F27D 11/06 (2006.01); **H05B 6/20** (2006.01); **H05B 6/34** (2006.01)

CPC (source: EP KR US)

H05B 6/20 (2013.01 - EP US); **H05B 6/34** (2013.01 - EP KR US); **H05B 2213/02** (2013.01 - EP US)

Citation (search report)

See references of WO 9941951A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

DE 19805644 A1 19990826; DE 19805644 C2 20010322; DE 59901727 D1 20020718; EP 1055354 A1 20001129; EP 1055354 B1 20020612; JP 2002503875 A 20020205; KR 100556715 B1 20060310; KR 20010040915 A 20010515; US 6240120 B1 20010529; WO 9941951 A1 19990819

DOCDB simple family (application)

DE 19805644 A 19980212; DE 59901727 T 19990122; DE 9900192 W 19990122; EP 99908749 A 19990122; JP 2000531987 A 19990122; KR 20007008823 A 20000811; US 58229800 A 20000622