

Title (en)

METHOD FOR OPTIMISING THE OPENING RATE OF STEEL-CASTING LADLES

Title (de)

VERFAHREN ZUM OPTIMIEREN DER ÖFFNUNGSRATE VON STAHLGIESSPFANNEN

Title (fr)

PROCEDE POUR OPTIMISER DES VITESSES D'OUVERTURE DE POCHES A ACIER EN FUSION

Publication

EP 1017523 A1 20000712 (DE)

Application

EP 99932822 A 19990706

Priority

- DE 19830265 A 19980707
- EP 9904671 W 19990706

Abstract (en)

[origin: DE19830265A1] The invention relates to a method for optimising the opening rate of the discharge system of steel-casting ladles. According to the method, the position of a discharge opening (16) of a filling pipe (15) in a horizontal plane in relation to an axis of the discharge channel (13) and optionally, the shape of an discharge end (16) of the filling pipe (15) are determined by non-contact detection before the gate filler (27) is metered. These images can be stored in a database with logical values for whether the discharge channel (13) opened reliably in a subsequent casting operation. This enables a map of the opening rate of the discharge channel (13) to be placed over the horizontal position of the discharge end (16). The map can then be used later for filling operations with the gate filler (27). The wear of the lining of the steel-casting ladle (11), the actual height of the entry cross section of the discharge channel (13) and the status of the discharge channel can also be determined and the introduction of the gate filler (27) into the discharge channel (13) can be controlled in dependence on the measured data. The status of the discharge end (16) of the filling pipe (15) for the gate filler (27) can also be determined and its discharge opening (16) can be positioned appropriately horizontal to or above the discharge channel (13), in accordance with the results.

IPC 1-7

B22D 41/46

IPC 8 full level

B22D 41/46 (2006.01)

CPC (source: EP)

B22D 41/46 (2013.01)

Citation (search report)

See references of WO 0002688A1

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)

DE 19830265 A1 20000113; AU 4907399 A 20000201; DE 19981284 D2 20010830; EP 1017523 A1 20000712; WO 0002688 A1 20000120

DOCDB simple family (application)

DE 19830265 A 19980707; AU 4907399 A 19990706; DE 19981284 T 19990706; EP 9904671 W 19990706; EP 99932822 A 19990706