

Title (en)

METHOD OF MONITORING THE SOLIDIFICATION PROCESS IN CONTINUOUS CASTING

Publication

EP 0384174 A3 19910306 (DE)

Application

EP 90101969 A 19900201

Priority

DE 3905516 A 19890223

Abstract (en)

[origin: EP0384174A2] For trouble-free progress of the casting process in continuous casting, as accurate data as possible on the position and extent of the solidification front within the continuous casting mould surrounded by an electromagnetic moving field are required. <??>The method according to the invention for monitoring the solidification process uses the signals of at least two sensor coils arranged concentrically around the continuous casting mould. The signals are fed to a measuring transducer and processed in an appropriate manner. The arrangement of the sensor coils within the levitation coil generating the moving field is particularly preferred.

IPC 1-7

B22D 11/16; B22D 11/10

IPC 8 full level

B22D 11/04 (2006.01); **B22D 11/10** (2006.01); **B22D 11/14** (2006.01); **B22D 11/16** (2006.01); **B22D 11/18** (2006.01)

CPC (source: EP US)

B22D 11/145 (2013.01 - EP US); **B22D 11/186** (2013.01 - EP US)

Citation (search report)

- [YD] DE 3049353 A1 19820204 - GEN ELECTRIC [US]
- [A] GB 2061783 A 19810520 - ASEA AB
- [A] US 4030533 A 19770621 - ITOH YASUO, et al
- [A] EP 0098214 A1 19840111 - SIDERURGIE FSE INST RECH [FR]
- [Y] FOUNDRY, Band 13, Nr. 3, März 1980, Zusammenfassung Nr. 51-0321; "Improved system for measuring molten steel level in mold of CC[continious casting] machine", & NKK NEWS, April 1979, 19, (3), 1.3
- [A] PATENT ABSTRACTS OF JAPAN, vol. 9, no. 297 (M-432)[2020], 25. November 1985; & JP-A-60 133 955 (SUMITOMO) 17-07-1985

Designated contracting state (EPC)

AT BE DE ES FR GB IT SE

DOCDB simple family (publication)

EP 0384174 A2 19900829; EP 0384174 A3 19910306; EP 0384174 B1 19930825; AT E93424 T1 19930915; CA 2009758 A1 19900823; CA 2009758 C 19951205; DE 3905516 A1 19900830; DE 59002415 D1 19930930; ES 2045586 T3 19940116; FI 900445 A0 19900129; FI 90507 B 19931115; FI 90507 C 19940225; JP 2948607 B2 19990913; JP H02235560 A 19900918; US 5042559 A 19910827

DOCDB simple family (application)

EP 90101969 A 19900201; AT 90101969 T 19900201; CA 2009758 A 19900209; DE 3905516 A 19890223; DE 59002415 T 19900201; ES 90101969 T 19900201; FI 900445 A 19900129; JP 1197990 A 19900123; US 48281390 A 19900221