

Title (en)

PROCESS FOR THE METALLURGICAL TREATMENT OF MOLTEN STEEL IN A CONVERTER WITH OXYGEN TOP BLOWN

Title (de)

VERFAHREN ZUR METALLURGISCHEN BEHANDLUNG VON FLÜSSIGEM STAHL MIT SAUERSTOFF IN EINEM AUFBLASKONVERTER

Title (fr)

PROCEDE POUR LE TRAITEMENT METALLURGIQUE D'ACIER EN FUSION DANS UN CONVERTISSEUR A SOUFFLAGE D'OXYGENE PAR LE HAUT

Publication

EP 1315841 A1 20030604 (EN)

Application

EP 00972070 A 20001006

Priority

- DE 19948187 A 19991006
- US 0028077 W 20001006

Abstract (en)

[origin: WO0231212A1] this invention concerns a blowing lance and a procedure for the metallurgical treatment of molten steel in a converter with oxygen top blown over the molten steel. In order to monitor the treatment process the intention is for a temperature probe (21) to be integrated into the water-cooled lance head (2) behind the front end of the lance head (11a) and between the cooling chambers (5-10) formed in the lance head (2). The signal lines (26) of this temperature probe run through the lance body (1), more specifically, in a central protective pipe which has no connections to the cooling medium or to the oxygen conducting channels (15, 16, and 17).

IPC 1-7

C21C 5/32; C21D 11/00

IPC 8 full level

C21C 5/30 (2006.01); **C21C 5/32** (2006.01); **C21C 5/46** (2006.01); **C21C 7/068** (2006.01); **C21D 11/00** (2006.01)

CPC (source: EP)

C21C 5/30 (2013.01); **C21C 5/4606** (2013.01); **C21C 5/4673** (2013.01); **C21C 7/068** (2013.01)

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)

WO 0231212 A1 20020418; AT E294244 T1 20050515; AU 1078501 A 20020422; CA 2388397 A1 20020418; DE 19948187 A1 20010510; DE 19948187 C2 20010809; DE 60019815 D1 20050602; EP 1315841 A1 20030604; EP 1315841 A4 20040630; EP 1315841 B1 20050427

DOCDB simple family (application)

US 0028077 W 20001006; AT 00972070 T 20001006; AU 1078501 A 20001006; CA 2388397 A 20001006; DE 19948187 A 19991006; DE 60019815 T 20001006; EP 00972070 A 20001006