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(71) Applicant(s):

VESUVIUS GROUP, S.A. [BE/BE]; rue de Douvrain 17 7011 GHLIN (BE) (*SM only*)

VESUVIUS REFRAATÓRIOS LTDA. [BR/BR]; Rua Benjamin da Silveira Baldy 2001 – Paulas e Mendes 18170-000 Piedade (BR) (*for all designated states*)

(72) Inventor(s):

LOPES, João, Altenir; Rua Vereador Benedito Fonseca nº 275 Morada da Colina 27251-193 Volta Redonda, RJ (BR)

(74) Agent(s):

BROHEZ, Véronique; 17 rue de Douvrain 7011 GHLIN (BE)

(54) Title (EN): LANCE FOR USE IN METAL PRODUCTION AND CASTING INSTALLATIONS

(54) Title (FR): LANCE DESTINÉE À ÊTRE UTILISÉE DANS DES INSTALLATIONS DE PRODUCTION ET DE COULÉE DE MÉTAUX

(57) Abstract:

(EN): The present invention concerns a lance composed of a top lance (1t) and of a sub lance (2) coupled to the top lance (1t), which forms a shoulder (1s) between the top lance and the sub lance. The sub lance (2) of the present invention is provided with a protective device (3) comprising a coupling end (2c) opening to the cavity (2v), wherein, • when at rest, the protective device (3) is in an initial configuration characterized by an outer maximum diameter (D3o) which is not more than 10% larger than the diameter (D2) of sub lance (2) (D3o # 1.1 D2), • when the sub lance (2) is coupled to the lance the protective device (3) contacts the shoulder (1s) and is deformed into a deformed configuration, forming a surface impervious to molten metal and slag, which spans over a whole area of the shoulder (1s).

(FR): La présente invention concerne une lance composée d'une lance supérieure (1t) et d'une sous-lance (2) accouplée à la lance supérieure (1t), qui forme un épaulement (1s) entre la lance supérieure et la sous-lance. La sous-lance (2) de la présente invention est munie d'un dispositif de protection (3) comprenant une extrémité d'accouplement (2c) débouchant dans la cavité (2v). • Au repos, le dispositif de protection (3) se trouve dans une configuration initiale caractérisée par un diamètre maximal externe (D3o) qui est plus large de 10 % ou moins par rapport au diamètre (D2) de sous-lance (2) (D3o # 1,1 D2), • lorsque la sous-lance (2) est accouplée à la lance, le dispositif de protection (3) vient en contact avec l'épaulement (1s) et est déformé en une configuration déformée, formant une surface à l'épreuve du métal fondu et du laitier, qui s'étend sur toute la surface de l'épaulement (1s).

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Declarations:

Declaration made as to the identity of the inventor (PCT Rules 4.17(i) and 51bis.1(a)(i))

Declaration made as applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate

Declaration made as applicant's entitlement, as at the international filing date, to claim the priority of the earlier application, where the applicant is not the applicant who filed the earlier application or where the applicant's name has changed since the filing of the earlier application (Rules 4.17(iii) and 51bis.1(a)(iii))

Declaration of inventorship (Rules 4.17(iv) and 51bis.1(a)(iv)) for the purposes of the designation of the United States of America