

Title (en)

METHOD OF MANUFACTURING LOW PHOSPHOROUS HOT METAL

Title (de)

VERFAHREN ZUR HERSTELLUNG VON PHOSPHORARMEM HEISSEM METALL

Title (fr)

PROCEDE DE FABRICATION DE METAL EN FUSION A BASSE TENEUR EN PHOSPHORE

Publication

EP 1533388 B1 20130814 (EN)

Application

EP 02807713 A 20020827

Priority

JP 0208604 W 20020827

Abstract (en)

[origin: EP1533388A1] The invention is to implement an efficient dephosphorization treatment without adding a large amount of CaF₂ and with a small addition amount of a refining agent. The invention is made based on the finding that a very efficient dephosphorization refinement utilizing an inhomogeneous molten state of slag can be implemented by feeding a gaseous oxygen and a refining agent onto a bath surface of a molten iron in a specific mode under conditions wherein a post-treatment slag is reduced appreciably in comparison to a conventional case. The dephosphorization treatment is performed by blowing the gaseous oxygen and at least a part of the refining agent onto the bath surface of the molten iron through a top blowing lance. Concurrently, the post-treatment slag rate is controlled to 30 kg/ton of molten iron or less, preferably to 20 kg/ton of molten iron or less, and more preferably 10 kg/ton of molten iron or less. In addition, the dephosphorization treatment be performed for an molten iron having a Si content of 0.15 mass% or less, more preferably 0.07 mass% or less, and particularly preferably 0.03 mass% or less. <IMAGE>

IPC 8 full level

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CPC (source: EP KR)

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EP 1533388 A1 20050525; **EP 1533388 A4 20110202**; **EP 1533388 B1 20130814**; BR 0213573 A 20041026; BR 0213573 B1 20131112; KR 100681292 B1 20070209; KR 20040053371 A 20040623; WO 2004020677 A1 20040311

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