

Title (en)

METHOD FOR PRODUCING LIQUID PIG IRON OR LIQUID STEEL INTERMEDIATE PRODUCTS FROM FINE-PARTICLED MATERIAL CONTAINING IRON OXIDE

Title (de)

VERFAHREN ZUR HERSTELLUNG VON FLÜSSIGEM ROHEISEN ODER FLÜSSIGEN STAHLVORPRODUKTEN AUS FEINTEILCHENFÖRMIGEM EISENOXIDHÄLTIGEM MATERIAL

Title (fr)

PROCÉDÉ DE PRODUCTION DE FONTE LIQUIDE OU DE DEMI-PRODUITS EN ACIER LIQUIDE À PARTIR D'UN MATERIAU SOUS FORME DE FINES PARTICULES CONTENANT DE L'OXYDE DE FER

Publication

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Application

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Abstract (en)

[origin: WO2007124870A2] The invention relates to a method for producing liquid pig iron or liquid steel intermediate products from fine-particled material containing iron oxide. The fine-particled material containing iron oxide is pre-reduced in at least one pre-reduction step with the aid of a reduction gas and is subsequently reduced in an end reduction step to form sponge iron. Said sponge iron is melted in a melt-down gasification area with carbon supports and oxygen-containing gas and a reduction gas containing CO- and H₂ that is produced is introduced into an end reduction step, reacted there, and drawn off, subsequently introduced into at least one pre-reduction step, reacted there and drawn off. In order to produce the melt-down gasifier with a high output, the production process runs in a stable manner and necessary partial combustions in the reduction gas lines are prevented. According to the invention, an amount of the fine-particled material containing iron oxide is introduced into at least one pre-reduction step and one end-reduction step in a melt-down gasification area and an additional amount of the fine-particled material containing iron oxide is directly or, together with the carbon supports and the oxygen-containing gas, introduced into the melt-down gasification area. The invention also relates to a device for carrying out said method.

IPC 8 full level

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