

Title (en)

PROCESS FOR PRODUCING LIQUID PIG IRON OR SEMIFINISHED STEEL PRODUCTS FROM ORE

Title (de)

VERFAHREN ZUR HERSTELLUNG VON FLÜSSIGEM ROHEISEN ODER STAHLVORPRODUKTEN AUS ERZ

Title (fr)

PROCEDE DE TRANSFORMATION DE MINERAIS DE FER EN FONTE BRUTE LIQUIDE OU EN PRODUITS BRUTS EN ACIER

Publication

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Application

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Priority

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Abstract (en)

[origin: WO9821370A1] In a process for producing liquid pig iron (9) or semifinished steel products from ore reduced into partially and/or totally reduced sponge iron (4) in at least one reduction zone, the sponge iron (4) is molten in a gasification zone (8) of a melting gasifier (1) to which carbon-containing materials (2) and oxygen are supplied, at the same time as a reduction gas is formed. In order to maintain a particular void volume in the bed (13) of solid carbon-containing materials (2) even when finely divided sponge iron (14) is charged, and thus to ensure a good gasification of the bed (13) of solid carbon-containing materials (2), at least the sponge iron (4) is intermittently introduced into the gasification zone (8), forming superimposed layers (14) of sponge iron embedded in the bed (13) of carbon-containing materials (2) and separated by solid carbon-containing materials (2). The sponge iron layers (14) extend over the cross-section of the gasification zone (8), leaving free an area (15) of the cross-section. The reduction gas generated in the gasification zone (8) flows upwards past the sponge iron layers (14), melting the same, through the sections (15) of the cross-section formed by carbon-containing materials (2) and free from sponge iron, gasifying the same.

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