

Title (en)
METHOD FOR MANUFACTURING MOLTEN IRON

Title (de)
VERFAHREN ZUR HERSTELLUNG VON GESCHMOLZENEM EISEN

Title (fr)
PROCÉDÉ DE PRODUCTION DE FER FONDU

Publication
EP 2641981 A2 20130925 (EN)

Application
EP 11842354 A 20111118

Priority
• KR 20100115554 A 20101119
• KR 2011008842 W 20111118

Abstract (en)
Provided are an apparatus and method for manufacturing molten iron. The apparatus for manufacturing molten iron, according to the present invention, comprises: a multi-stage fluid bed furnace for converting fine iron ores into reduced fine iron through reduction; at least one high-temperature compacting unit for preparing a high-temperature compacted iron by compressing the reduced fine iron; at least one crushing unit for crushing the high-temperature compacted iron to have a certain particle size; a first conveying unit for conveying the crushed high-temperature compacted iron; and a melting furnace for melting the conveyed high-temperature compacted iron by combusting fine or lump coal, and for supplying a reducing gas, which is generated in the furnace, to a fluidized reduction furnace. In addition, the apparatus further comprises at least one compacted iron storing unit for storing some of the compacted iron which has been crushed. According to the present invention, molten iron can be manufactured stably and efficiently.

IPC 8 full level
C21B 13/06 (2006.01)

CPC (source: EP)
C21B 13/002 (2013.01); **C21B 13/143** (2013.01)

Cited by
EP3081654A4; DE102014111906A1; US10214787B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 2641981 A2 20130925; EP 2641981 A4 20170830; EP 2641981 B1 20190605; CN 103221555 A 20130724; CN 103221555 B 20150715; CN 104694687 A 20150610; KR 101187851 B1 20121004; KR 20120054262 A 20120530; WO 2012067462 A2 20120524; WO 2012067462 A3 20120823

DOCDB simple family (application)
EP 11842354 A 20111118; CN 201180055721 A 20111118; CN 201510038469 A 20111118; KR 20100115554 A 20101119; KR 2011008842 W 20111118