

Title (en)  
METHOD FOR CHARGING FUEL AND SPONGE IRON INTO A MELTING FURNACE

Publication  
**EP 0299231 B1 19910724 (DE)**

Application  
**EP 88109788 A 19880620**

Priority  
DE 3723137 A 19870713

Abstract (en)  
[origin: EP0299231A1] The equipment for charging a fusion gasifier (2) with gasifying agents and iron sponge discharged from a direct-reduction shaft furnace (1) arranged above the fusion gasifier consists of inlets and outlets in the lower part of the shaft furnace, connecting lines (4) extending in the upper region of the gasifier symmetrically to the longitudinal axis of the shaft furnace and/or of the gasifier in the form of drop pipes between the shaft furnace and the gasifier and of iron sponge discharge devices (7), such as screw conveyors or the like, aligned radially relative to this longitudinal axis. The connecting lines here lead at least approximately vertically into the lowest, essentially horizontally extending bottom region of the shaft furnace. The discharge devices are located at the inlets (9) of the fusion gasifier downstream of the connecting lines in the discharge direction, and the inlet (3) for the gasifying agent is located in the longitudinal axis of the fusion gasifier directly next to the inlets for the iron sponge. Preferably, the inlets for the iron sponge and gasifying agent are located within a domed top (5) of the fusion gasifier. <IMAGE>

IPC 1-7  
**C21B 13/14; C21C 5/52**

IPC 8 full level  
**C21B 11/02** (2006.01); **C21B 13/00** (2006.01); **C21B 13/14** (2006.01); **C21C 5/52** (2006.01); **C21C 5/56** (2006.01); **F27D 3/08** (2006.01)

CPC (source: EP KR US)  
**C21B 7/00** (2013.01 - KR); **C21B 13/002** (2013.01 - EP US); **C21B 13/14** (2013.01 - EP US); **C21C 5/56** (2013.01 - EP US)

Cited by  
DE102008026835A1; AU721434B2; WO2012156243A1; US6224647B1; WO9746719A1; EP3150729A1; WO2017055419A1

Designated contracting state (EPC)  
BE DE FR GB IT LU NL SE

DOCDB simple family (publication)  
**EP 0299231 A1 19890118; EP 0299231 B1 19910724**; AT 396254 B 19930726; AT A178988 A 19921115; AU 1845288 A 19890119; AU 610190 B2 19910516; BR 8803524 A 19890208; CA 1310827 C 19921201; DD 274449 A5 19891220; DE 3723137 C1 19890316; DE 3863862 D1 19910829; JP H0239581 B2 19900906; JP S6433494 A 19890203; KR 890002425 A 19890410; KR 960001711 B1 19960203; SU 1591815 A3 19900907; US 4898366 A 19900206; ZA 884677 B 19890329

DOCDB simple family (application)  
**EP 88109788 A 19880620**; AT 178988 A 19880711; AU 1845288 A 19880628; BR 8803524 A 19880713; CA 571820 A 19880712; DD 31774288 A 19880708; DE 3723137 A 19870713; DE 3863862 T 19880620; JP 17483788 A 19880713; KR 880008683 A 19880713; SU 4356191 A 19880713; US 21672988 A 19880708; ZA 884677 A 19880630