

Title (en)

DEVICE FOR PRODUCING SPONGE IRON

Title (de)

VORRICHTUNG ZUR ERZEUGUNG VON EISENSCHWAMM

Title (fr)

DISPOSITIF DE PRODUCTION DE FER SPONGIEUX

Publication

EP 1017859 A1 20000712 (DE)

Application

EP 98951258 A 19980826

Priority

- DE 9802581 W 19980826
- DE 19739443 A 19970902

Abstract (en)

[origin: US6391249B1] A device for producing sponge iron from iron oxide lumps consists of a reduction shaft in which a hot dust laden reducing gas is delivered. The gas is produced in a gas generator by means of partial oxidation of solid carbon carriers and passes into the lower end of the reduction zone via lateral reduction gas inlets. The iron oxide lumps are fed to the upper area of the reduction shaft and are radially fed as sponge iron to the lower end of said reduction shaft via delivery organs. The delivery organs are arranged in such a manner that the sponge iron is conveyed only radially outwardly.

IPC 1-7

C21B 13/14; F27D 3/08

IPC 8 full level

C21B 13/14 (2006.01); **C21B 13/02** (2006.01); **F27B 1/21** (2006.01); **F27D 3/00** (2006.01); **F27D 3/08** (2006.01)

CPC (source: EP KR US)

C21B 13/02 (2013.01 - EP US); **C21B 13/14** (2013.01 - KR); **F27B 1/21** (2013.01 - EP US); **F27D 3/0033** (2013.01 - EP US);
F27D 3/08 (2013.01 - EP US)

Citation (search report)

See references of WO 9911825A1

Designated contracting state (EPC)

AT BE DE FR GB IT LU NL SE

DOCDB simple family (publication)

US 6391249 B1 20020521; AT E217352 T1 20020515; AU 748791 B2 20020613; AU 9736098 A 19990322; BR 9811435 A 20000822;
CA 2301266 A1 19990311; CN 1080316 C 20020306; CN 1269839 A 20001011; DE 19739443 A1 19990304; DE 19739443 C2 20000210;
DE 59804077 D1 20020613; EP 1017859 A1 20000712; EP 1017859 B1 20020508; ID 25550 A 20001012; JP 2001515137 A 20010918;
KR 100563963 B1 20060329; KR 20010023482 A 20010326; PL 338798 A1 20001120; SK 2892000 A3 20000912; TR 200000572 T2 20001121;
TW 426740 B 20010321; WO 9911825 A1 19990311; ZA 987742 B 19981126

DOCDB simple family (application)

US 48687900 A 20000403; AT 98951258 T 19980826; AU 9736098 A 19980826; BR 9811435 A 19980826; CA 2301266 A 19980826;
CN 98808784 A 19980826; DE 19739443 A 19970902; DE 59804077 T 19980826; DE 9802581 W 19980826; EP 98951258 A 19980826;
ID 20000408 A 19980826; JP 2000508830 A 19980826; KR 20007002127 A 20000229; PL 33879898 A 19980826; SK 2892000 A 19980826;
TR 200000572 T 19980826; TW 87118249 A 19981103; ZA 987742 A 19980826