

Title (en)
WITHDRAWAL DEVICE FOR A SHAFT FURNACE

Title (de)
AUSTRAGVORRICHTUNG FÜR SCHACHTOFEN

Title (fr)
DISPOSITIF D'EXTRACTION POUR FOUR A CUVE

Publication
EP 1029088 B1 20011004 (DE)

Application
EP 98961102 A 19981026

Priority
• AT 189297 A 19971107
• EP 9806794 W 19981026

Abstract (en)
[origin: WO9924626A1] The invention relates to a shaft furnace (1), especially a direct reduction shaft furnace, with a charging stock (2) of lumpy material, especially lumpy material containing iron oxide and/or sponge iron, and conveyor screws (3) for removing the lumpy material from the shaft furnace (1). Said conveyor screws intersperse the shaft furnace casing in which they are mounted and are arranged over the floor area of the shaft furnace (1).

IPC 1-7
C21B 13/02; **F27D 3/08**; **F27B 1/21**

IPC 8 full level
B65G 33/08 (2006.01); **B65G 65/46** (2006.01); **C21B 13/02** (2006.01); **F27B 1/21** (2006.01); **F27D 3/08** (2006.01)

CPC (source: EP KR US)
C21B 13/02 (2013.01 - EP KR US); **F27B 1/21** (2013.01 - EP US); **F27D 3/08** (2013.01 - EP US)

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

DOCDB simple family (publication)
WO 9924626 A1 19990520; AT 405455 B 19990825; AT A189297 A 19981215; AU 1664399 A 19990531; AU 735530 B2 20010712; BR 9812775 A 20001010; CA 2308388 A1 19990520; CN 1090680 C 20020911; CN 1278305 A 20001227; DE 59801664 D1 20011108; EP 1029088 A1 20000823; EP 1029088 B1 20011004; JP 2001522937 A 20011120; KR 100557232 B1 20060307; KR 20010031825 A 20010416; PL 340872 A1 20010312; RU 2194770 C2 20021220; SK 6672000 A3 20001107; TR 200001243 T2 20001121; TW 406178 B 20000921; US 6280181 B1 20010828; ZA 9810170 B 19990507

DOCDB simple family (application)
EP 9806794 W 19981026; AT 189297 A 19971107; AU 1664399 A 19981026; BR 9812775 A 19981026; CA 2308388 A 19981026; CN 98810814 A 19981026; DE 59801664 T 19981026; EP 98961102 A 19981026; JP 2000519617 A 19981026; KR 20007004895 A 20000504; PL 34087298 A 19981026; RU 2000114833 A 19981026; SK 6672000 A 19981026; TR 200001243 T 19981026; TW 87119075 A 19981118; US 53098500 A 20000816; ZA 9810170 A 19981106