

Title (en)

Process, taphole drilling machine and two-directional gripping devices for piercing a shaft furnace taphole.

Title (de)

Verfahren; Bohrstange und Zwei-Richtungen-Klemmvorrichtung zum Stichlochbohren an Schachtofen.

Title (fr)

Procédé d'introduction d'une tige de perçage dans le trou de coulée d'un four à cuve, machine de perçage et pince bi-directionnelle.

Publication

EP 0507100 A1 19921007 (FR)

Application

EP 92103828 A 19920306

Priority

- LU 87915 A 19910403
- LU 88020 A 19911016

Abstract (en)

Process for introducing a piercing rod into a semihardened plugging mass with which a taphole of a shaft furnace has been stoppered. This process is implemented with the aid of a piercing machine equipped with a carriage (26) bearing against the wall of the furnace (20). A clamp (46) mounted on the carriage (26) can travel lengthwise on the latter under the action of a hydraulic jack (42) mounted at the front of the carriage (20). After the rod (22) has been threaded through the clamp (46), the jack (42) and the clamp (46) are actuated in order to move the rod forward with the aid of the clamp (46) by a length corresponding to the stroke of the jack (42). The clamp (46) is then opened and returned to the starting position. These operations are repeated until the rod (22) is driven into the taphole to the desired length. A machine for implementing this process is also proposed, as are a number of types of clamps allowing the rod to be gripped both during the introduction and during the extraction of the latter. <IMAGE>

IPC 1-7

C21B 7/12

IPC 8 full level

C21B 7/12 (2006.01)

CPC (source: EP)

C21B 7/12 (2013.01)

Citation (search report)

- [YD] EP 0379018 A2 19900725 - WURTH PAUL SA [LU]
- [Y] US 3834668 A 19740910 - CASEY J
- [A] US 4455107 A 19840619 - SCHOSEK WILLIAM O [US]
- [A] US 4000879 A 19770104 - MARTIN JAMES SCOTT, et al
- [A] US 4955757 A 19900911 - BALLING CURTIS [US]
- [A] DE 2153297 A1 19720525

Cited by

GB2260189B; FR2687688A1

Designated contracting state (EPC)

AT BE ES FR GB IT NL SE

DOCDB simple family (publication)

EP 0507100 A1 19921007; AU 1282192 A 19921008; BR 9201335 A 19921201; CA 2064936 A1 19921004; CN 1027181 C 19941228; CN 1065492 A 19921021; CS 96892 A3 19921014; DE 4207491 A1 19921008; FI 921408 A0 19920331; FI 921408 A 19921004; JP H05132706 A 19930528; PL 294067 A1 19921019; TR 26383 A 19950315

DOCDB simple family (application)

EP 92103828 A 19920306; AU 1282192 A 19920312; BR 9201335 A 19920402; CA 2064936 A 19920402; CN 92102342 A 19920402; CS 96892 A 19920401; DE 4207491 A 19920310; FI 921408 A 19920331; JP 11080592 A 19920402; PL 29406792 A 19920401; TR 29192 A 19920402