

Title (en)

Guiding and positioning mechanism for the drill hammer of the taphole in a shaft furnace, and drilling device provided with this mechanism.

Title (de)

Führungs- und Positioniermechanismus für die Bohrstange des Abstichloches am Schachtofen und Stichlochbohrmaschine mit einem solchen Mechanismus.

Title (fr)

Dispositif de centrage et de guidage d'une tige de perçage du trou de coulée d'un four à cuve et perceuse pourvue d'un tel dispositif.

Publication

EP 0064644 A1 19821117 (FR)

Application

EP 82103437 A 19820423

Priority

LU 83336 A 19810505

Abstract (en)

1. Guiding and centering device for a drill rod (26) of the taphole (22) of a shaft furnace designed to be mounted on the front end of the tool holding bar (30) of the taphole drilling machine which is equipped with a device (34) for gripping the end (28) of the drill rod (26), which can slide along the tool holding bar (30) of the machine, comprising a pair of pivoting jaws (38, 40), (58, 60) of complementary shapes, and a mechanism serving to pivot the two jaws (38, 40), (58, 60) synchronously between an open position and a closed position in which the jaws (38, 40) (58, 60) grasp the drill rod, characterized in that the jaws (38, 40), (58, 60) are mounted on parallel rotation shafts (42, 44) (62, 64) at the front end of the bar (30) perpendicularly to the longitudinal axis of the latter and symmetrically on either side of the prolongation of the axis of the gripping device (34) and in that the inner side of each of the jaws (38, 40) (58, 60) takes the form of an inclined ramp (38a, 40a), the ramp of one of the jaws (38) being situated in the upper part of the jaw and orientated to act from the top downwards on the drill rod (26), while the ramp (40a) of the other jaw (40) occupies a symmetrical position in the lower part of the jaw and is orientated to act from the bottom upwards on the drill rod (26).

Abstract (fr)

Dans une machine conçue pour un procédé selon lequel l'ouverture et la fermeture du trou de coulée comportent respectivement une opération d'extraction et une opération de remise en place d'une tige de perçage (26), il est nécessaire d'aligner l'affût (30) de la machine sur la tige (26) afin de pouvoir saisir celle-ci et, à cet effet, il est prévu une paire de mâchoires (38, 40) de formes complémentaires, fixées sur l'avant de l'affût (30), et pouvant, par pivotement, saisir et guider la tige de perçage (26).

IPC 1-7

C21B 7/12; E21C 9/00

IPC 8 full level

C21B 7/12 (2006.01); **E21B 19/24** (2006.01); **F27B 1/21** (2006.01); **F27D 3/15** (2006.01)

CPC (source: EP)

C21B 7/12 (2013.01); **E21B 19/24** (2013.01)

Citation (search report)

- [X] EP 0025423 A1 19810318 - ATLAS COPCO FRANCE [FR], et al
- [Y] US 2789789 A 19570423 - LEA JR LUKE
- [Y] US 2523512 A 19500926 - NAST PAUL H
- [Y] US 3756669 A 19730904 - BUCELLUNI G
- [Y] FR 1264949 A 19610623 - BOEHLER & CO AG GEB
- [Y] US 3441323 A 19690429 - VINCENT ROBERT R, et al
- [Y] US 2675997 A 19540420 - OSGOOD CHARLES F
- [Y] US 2394806 A 19460212 - RICE EDWARD A
- [AD] FR 2427568 A1 19791228 - WURTH PAUL SA [LU]
- [AD] LU 82943 A1 19810326 - WURTH ANCIENS ETS PAUL [LU]

Cited by

EP0168382A1; EP0122844A1; FR2544332A1; DE4301323C2; US5039068A; EP0574729A1; US5351939A; DE4317436C2; FR2687688A1; US4602770A; EP2415881A1; CN103052720A; WO2012016833A3

Designated contracting state (EPC)

AT BE DE FR GB IT

DOCDB simple family (publication)

EP 0064644 A1 19821117; EP 0064644 B1 19850918; AR 227821 A1 19821215; AT E15696 T1 19851015; AU 552108 B2 19860522; AU 8326182 A 19821111; DE 3266314 D1 19851024; ES 511607 A0 19830616; ES 8306861 A1 19830616; LU 83336 A1 19830324; ZA 822789 B 19830330

DOCDB simple family (application)

EP 82103437 A 19820423; AR 28917982 A 19820422; AT 82103437 T 19820423; AU 8326182 A 19820504; DE 3266314 T 19820423; ES 511607 A 19820422; LU 83336 A 19810505; ZA 822789 A 19820423