

Title (en)

Supporting and lowering system for arc furnace electrode.

Title (de)

Nachsetz- und Haltevorrichtung für eine Elektrode eines Lichtbogenofens.

Title (fr)

Système de maintien et d'avance pour électrode de four à arc.

Publication

EP 0120312 A1 19841003 (DE)

Application

EP 84101964 A 19840224

Priority

DE 3307259 A 19830302

Abstract (en)

1. An adjusting and holding apparatus for an electrode (1) of an electric arc furnace having an electrode casing (3) fixed to an electrode arm (2) and an electrode core (4) of consumable material which is axially displaceable in the electrode casing and which in the operating condition of the electrode projects with its tip (5) from the electrode casing at the bottom thereof, further comprising an upper feed means (12, 12') which bears against the electrode casing or the electrode carrier arm and which is in the form of a thrust drive means which carries an upper controllable clamping means (14) for the electrode core (4) and by means of which the electrode core can be held and displaced within the electrode casing, and a lower controllable clamping means (13) for the electrode core, which is carried by the electrode casing, wherein the controllable clamping means each include at least one clamping jaw (20, 22, 71, 83) which is in the form of a sector of a ring and which is radially displaceable by an actuating means (25), characterized in that the lower clamping means (14) is arranged within the electrode casing (3) and the actuating means (25) for the radially displaceable clamping jaw (22, 71, 83) of said clamping means (13) includes an actuating rod (26, 82) which is passed downwardly within the electrode casing (3) and by which the clamping jaw can be displaced towards and pressed against the electrode core and released therefrom by means of a taper or eccentric mechanism engaging the clamping jaw.

Abstract (de)

Bei einer Elektrode (1) mit innerhalb eines Elektrodenmantels (3) axial verschiebbarem Elektrodenkern (4) aus verzehrbarem Material ist der Kern durch eine untere steuerbare Spannvorrichtung (13) sowie eine sich über einen Energiespeicher (16) auf dem Elektrodentragarm (2) bzw. Elektrodenmantel (3) abstützende obere steuerbare Spannvorrichtung (14) gehalten. Durch Lösen der unteren Spannvorrichtung (13) wird aufgrund des Gewichtes des Elektrodenkerns (4) dieser unter Ladung des Energiespeichers (16) um ein vorgegebenes Maß abgesenkt, danach die untere Spannvorrichtung (13) angezogen und die obere gelöst, die durch den Energiespeicher (16) um das Absenkmaß angehoben wird. Schließlich wird die obere Spannvorrichtung (14) wieder festgezogen.

IPC 1-7

H05B 7/109; **F27D 11/10**; **H05B 7/103**

IPC 8 full level

F27D 11/10 (2006.01); **H05B 7/103** (2006.01); **H05B 7/109** (2006.01)

CPC (source: EP)

H05B 7/103 (2013.01); **H05B 7/109** (2013.01)

Citation (search report)

- DE 976617 C 19640102 - WOTSCHKE JOHANNES DR-ING
- CH 340565 A 19590831 - ELEKTROKEMISK AS [NO]
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CN104165526A

Designated contracting state (EPC)

AT BE CH DE FR GB LI SE

DOCDB simple family (publication)

EP 0120312 A1 19841003; **EP 0120312 B1 19870520**; DE 3307259 A1 19841004; DE 3463887 D1 19870625; ES 530210 A0 19841101; ES 8500545 A1 19841101

DOCDB simple family (application)

EP 84101964 A 19840224; DE 3307259 A 19830302; DE 3463887 T 19840224; ES 530210 A 19840301