

Title (en)

Electrode supporting arm for an electric arc furnace

Title (de)

Elektrodentragarm für Lichtbogenofen

Title (fr)

Bras de support pour électrode d'un four à arc électrique

Publication

EP 0594272 B1 19970903 (DE)

Application

EP 93250271 A 19931006

Priority

DE 4236158 A 19921020

Abstract (en)

[origin: US5471496A] An electrode support arm for arc furnaces which is constructed as a hollow section with a wall formed at least partially from current-carrying material of high conductivity. The wall of the hollow section has a coolant guiding system including ducts arranged in the wall so as to be parallel to one another and concentric to the center axis of the support arm. The quantity and dimensions of these ducts enable sufficient cooling without a reduction in the strength of the support arm.

IPC 1-7

H05B 7/10; **H05B 7/12**

IPC 8 full level

F27D 11/08 (2006.01); **H05B 7/10** (2006.01); **H05B 7/101** (2006.01); **H05B 7/12** (2006.01)

CPC (source: EP KR US)

H05B 7/10 (2013.01 - KR); **H05B 7/101** (2013.01 - EP US)

Citation (examination)

- US 3686421 A 19720822 - WUNSCH EDGAR, et al
- US 3602624 A 19710831 - TURNER ALFRED H, et al
- EP 0340726 B1 19910731
- DE 2701130 A1 19770728 - ISHIKAWAJIMA HARIMA HEAVY IND
- J. Ehle et al., "Entwurf und Betriebsergebnisse von stromleitenden Tragarmen für Lichtbogenöfen", Stahl und Eisen, 105, 1985, Nr. 21, Seiten 1086-1090
- offenkundige Vorbenutzung des Einsprechenden

Cited by

EP3232735A1; DE102016206028A1; DE102006027648A1; US8798113B2; DE102010052086A1; WO2011110522A1

Designated contracting state (EPC)

AT BE CH DE ES FR LI LU

DOCDB simple family (publication)

US 5471496 A 19951128; AT E157839 T1 19970915; BR 9301181 A 19941101; DE 4236158 C1 19940317; DE 59307254 D1 19971009; EP 0594272 A1 19940427; EP 0594272 B1 19970903; EP 0594272 B2 20050622; ES 2106269 T3 19971101; GB 2271836 A 19940427; GB 2271836 B 19960327; GB 9302625 D0 19930324; JP 3300720 B2 20020708; JP H06223963 A 19940812; KR 100259014 B1 20000615; KR 940010857 A 19940526; SG 52327 A1 19980928

DOCDB simple family (application)

US 13823393 A 19931015; AT 93250271 T 19931006; BR 9301181 A 19930315; DE 4236158 A 19921020; DE 59307254 T 19931006; EP 93250271 A 19931006; ES 93250271 T 19931006; GB 9302625 A 19930210; JP 28434593 A 19931019; KR 930021834 A 19931020; SG 1996002848 A 19930210