

Title (en)  
THERMAL TREATMENT INSTALLATION FOR MOLTEN METAL

Publication  
**EP 0344092 A3 19910123 (DE)**

Application  
**EP 89730089 A 19890403**

Priority  
DE 3817379 A 19880518

Abstract (en)  
[origin: US4958358A] Apparatus for the thermal treatment of a metallic melt includes a metallurgical vessel (10) for receiving the melt; a D.C. arc heating device for heating the melt includes at least one electrode (20) positioned above the melt and at least one counterelectrode (22) in contact with the melt; a first element located on the outer jacket of the metallurgical vessel for transferring electrical energy to the counterelectrode; a second element (40) for transferring electrical energy to the first transfer element (30); and a compensation or equalizing element (45, 44) operatively connected to the second transfer element for mechanically positioning the contact plane of the second transfer element in electrical energy conducting relation with the contact plane of the first transfer element.

IPC 1-7  
**H05B 7/06; F27D 11/10; F27B 3/08**

IPC 8 full level  
**C22B 9/00** (2006.01); **B22D 1/00** (2006.01); **C21C 7/00** (2006.01); **F27B 3/08** (2006.01); **F27D 11/10** (2006.01); **H05B 7/06** (2006.01); **H05B 7/11** (2006.01)

CPC (source: EP KR US)  
**B22D 1/00** (2013.01 - EP US); **C21C 7/0075** (2013.01 - EP US); **F27D 11/10** (2013.01 - KR); **H05B 7/06** (2013.01 - EP US)

Citation (search report)

- [A] EP 0235465 A1 19870909 - SIDERURGIE FSE INST RECH [FR]
- [A] US 3409725 A 19681105 - LARRY PENBERTHY HARVEY
- [AD] DE 3535690 A1 19870409 - GUTEHOFFNUNGSHUETTE MAN [DE]
- [A] US 4686687 A 19870811 - MURE HIROSHI [JP], et al
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- [A] US 1645091 A 19271011

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Designated contracting state (EPC)  
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DOCDB simple family (publication)  
**US 4958358 A 19900918**; AT E106652 T1 19940615; CA 1316972 C 19930427; DE 3817379 C1 19890622; DE 58907738 D1 19940707; EP 0344092 A2 19891129; EP 0344092 A3 19910123; EP 0344092 B1 19940601; ES 2054080 T3 19940801; JP 2832539 B2 19981209; JP H0219429 A 19900123; KR 890017018 A 19891214; KR 970008502 B1 19970524

DOCDB simple family (application)  
**US 35293489 A 19890517**; AT 89730089 T 19890403; CA 599900 A 19890517; DE 3817379 A 19880518; DE 58907738 T 19890403; EP 89730089 A 19890403; ES 89730089 T 19890403; JP 12272089 A 19890516; KR 890006629 A 19890518