

Title (en)

Protecting device for induction poles and inductor provided with this device.

Title (de)

Schutzvorrichtung für Induktionspole und Induktor, welcher mit solch einer Vorrichtung versehen ist.

Title (fr)

Dispositif de protection des pôles d'inducteurs et inducteur pourvu de ce dispositif.

Publication

**EP 0340057 B1 19941207 (FR)**

Application

**EP 89400908 A 19890403**

Priority

FR 8805940 A 19880426

Abstract (en)

[origin: JPH01313882A] PURPOSE: To maintain an electrode under load with high reliability and durability without decreasing thermal efficiency by enabling electrical coupling arbitrary two tube elements in a heat exchanger constituted to circulate cooling fluid, while the space between them is found in only one place. CONSTITUTION: A device has a heat exchanger 6' which is arranged on substantially the same plane, and composed of one or more tubes 6 made of a non- magnetic metal, and cooling fluid circulates in the tubes 6. Arbitrary two tube elements in the tubes 6 or tube elements are electrically connected only at one place and an electric circuit (loop) cannot be made between the tubes in the adjacent or not adjacent to each other or between parts of the tubes. As a result, two opposite functions, that is, a function to protect the electrode from heat by doing a compulsory cooling with a heat exchanger composed of a metal tube and a function of maintaining an inducement device to high heating efficiency can be mutually harmonized.

IPC 1-7

**H05B 6/42**; **H05B 6/02**

IPC 8 full level

**H05B 6/02** (2006.01); **H05B 6/42** (2006.01)

CPC (source: EP KR US)

**F28D 7/04** (2013.01 - EP US); **H05B 1/00** (2013.01 - KR); **H05B 6/42** (2013.01 - EP US)

Cited by

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DOCDB simple family (publication)

**EP 0340057 A1 19891102**; **EP 0340057 B1 19941207**; AT E115354 T1 19941215; AU 3272389 A 19891102; AU 615283 B2 19910926; BR 8901951 A 19891205; CA 1313236 C 19930126; DE 68919743 D1 19950119; DE 68919743 T2 19950427; ES 2065403 T3 19950216; FR 2630612 A1 19891027; FR 2630612 B1 19960524; GR 3015004 T3 19950531; JP 2807734 B2 19981008; JP H01313882 A 19891219; KR 0142908 B1 19981001; KR 890016872 A 19891130; US 4960967 A 19901002; ZA 893056 B 19891227

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