

Title (en)

Process and device for controlled quenching of light metal castings in a liquid bath

Title (de)

Verfahren und Vorrichtung zum gesteuerten Abschrecken von Leichtmetallgussstücken in einem Flüssigkeitsbad

Title (fr)

Procédé et dispositif pour la trempe contrôlée de pièces coulées de métaux légers dans un bain de liquide

Publication

EP 1148146 B1 20060104 (DE)

Application

EP 01108439 A 20010404

Priority

DE 10019306 A 20000419

Abstract (en)

[origin: DE10019306C1] Process for the controlled quenching of light metal cast pieces in a liquid bath comprises subjecting the cast pieces in the bath to gas bubbles, the bubbles being uniformly distributed at the base of the bath. AN Independent claim is also included for a device for the controlled quenching of light metal cast pieces in a liquid bath comprising a bath (11) filled with quenching liquid and connected to a gas bubble generator consisting of an air feed chamber (14) at the base of the bath with a cover (13) having a number of gas outlet openings. Preferred Features: The liquid in the bath is continuously circulated. The gas bubble stream is shut off before the cast pieces are removed from the bath.

IPC 8 full level

C21D 1/63 (2006.01); **C21D 1/18** (2006.01); **C21D 1/64** (2006.01); **C22F 1/00** (2006.01); **C22F 1/04** (2006.01)

CPC (source: EP KR US)

C21D 1/63 (2013.01 - EP KR US); **C21D 1/64** (2013.01 - EP US); **C22F 1/04** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

US 2001054460 A1 20011227; AT E315110 T1 20060215; AU 3135301 A 20011101; AU 747095 B2 20020509; BR 0101500 A 20011120; CA 2344287 A1 20011019; CN 1323914 A 20011128; CZ 20011251 A3 20020515; CZ 296750 B6 20060614; DE 10019306 C1 20010913; DE 50108596 D1 20060330; EP 1148146 A2 20011024; EP 1148146 A3 20031029; EP 1148146 B1 20060104; EP 1148146 B8 20060405; ES 2256105 T3 20060716; HU 0101574 D0 20010628; HU P0101574 A2 20011228; HU P0101574 A3 20040301; JP 2001348617 A 20011218; KR 100443226 B1 20040804; KR 20010098726 A 20011108; MX PA01003906 A 20040531; NO 20011905 D0 20010418; NO 20011905 L 20011022; PL 347049 A1 20011022; SK 285480 B6 20070201; SK 4822001 A3 20020702; ZA 200102604 B 20011002

DOCDB simple family (application)

US 83383601 A 20010412; AT 01108439 T 20010404; AU 3135301 A 20010327; BR 0101500 A 20010418; CA 2344287 A 20010418; CN 01116646 A 20010417; CZ 20011251 A 20010405; DE 10019306 A 20000419; DE 50108596 T 20010404; EP 01108439 A 20010404; ES 01108439 T 20010404; HU P0101574 A 20010418; JP 2001117194 A 20010416; KR 20010021009 A 20010419; MX PA01003906 A 20010418; NO 20011905 A 20010418; PL 34704901 A 20010412; SK 4822001 A 20010409; ZA 200102604 A 20010329