

Title (en)

METHOD FOR THE THERMAL TREATMENT OF A FOUNDRY PIECE MADE FROM AN ALLOY BASED ON ALUMINIUM AND FOUNDRY PIECE

Title (de)

VERFAHREN ZUR WÄRMEBEHANDLUNG EINES GUSSSTÜCKS AUS ALUMINIUM-LEGIERUNG, UND GUSSSTÜCK

Title (fr)

PROCÉDÉ DE TRAITEMENT THERMIQUE D'UNE PIÈCE DE FONDERIE EN ALLIAGE A BASE D'ALUMINIUM ET PIÈCE DE FONDERIE

Publication

EP 1488021 B1 20140115 (FR)

Application

EP 03730296 A 20030320

Priority

- FR 0300887 W 20030320
- FR 0203530 A 20020320

Abstract (en)

[origin: WO03078674A2] The invention relates to a thermal treatment method for a foundry piece made from an aluminium alloy, particularly an alloy of aluminium, silicon, magnesium and optionally copper. Said method comprises the following steps: (a) placing the piece in a solution within a first range of temperatures for a first period, (b) progressive cooling of the piece to a second temperature within a second range of temperatures lower than the first, (c) the piece is retained in the solution whilst maintaining the second range of temperatures for a second period, (d) quenching of the piece and (e) tempering the piece. The invention further relates to foundry pieces having improved mechanical properties. The above is applied to improving the machinability of pieces such as cylinder heads for internal combustion engines whilst retaining good durability.

IPC 8 full level

C22F 1/043 (2006.01); **C22F 1/047** (2006.01)

CPC (source: EP US)

C22F 1/043 (2013.01 - EP US); **C22F 1/047** (2013.01 - EP US)

Designated contracting state (EPC)

DE

DOCDB simple family (publication)

WO 03078674 A2 20030925; WO 03078674 A3 20040401; AU 2003240929 A1 20030929; AU 2003240929 A8 20030929; EP 1488021 A2 20041222; EP 1488021 B1 20140115; FR 2837501 A1 20030926; FR 2837501 B1 20050128; US 2005217771 A1 20051006; US 7776168 B2 20100817

DOCDB simple family (application)

FR 0300887 W 20030320; AU 2003240929 A 20030320; EP 03730296 A 20030320; FR 0203530 A 20020320; US 50822705 A 20050418