

Title (en)

Process of manufacturing a structural element made of a die-cast aluminium alloy

Title (de)

Verfahren zur Herstellung eines Strukturbauteiles aus einer Aluminium-Druckgusslegierung

Title (fr)

Procédé de manufacture d'un élément de structure en alliage d'aluminium moulé sous pression

Publication

EP 0918096 B1 20030326 (DE)

Application

EP 97810885 A 19971120

Priority

EP 97810885 A 19971120

Abstract (en)

[origin: EP0918096A1] A structural component of a die cast aluminum alloy contains 0.05-0.3 wt.% vanadium. The aluminum alloy has the composition (by wt.) NOTGREATER 1.4% Si, NOTGREATER 0.8% Fe, 0.1-1.6% Mn, NOTGREATER 5.0% Mg, NOTGREATER 0.2% Ti, NOTGREATER 0.1% Zn, 0.05-0.3% V, balance Al and NOTGREATER 0.2% total (NOTGREATER 0.02% each) impurities. The especially preferred composition is (a) 0.1-0.8 (especially 0.15-0.25)% Si, 0.2-0.8 (especially 0.3-0.6)% Fe, 0.5-1.8 (especially 0.7-0.9)% Mn, NOTGREATER 1.5% Mg, NOTGREATER 0.2% Ti, NOTGREATER 0.1% Zn, 0.05-0.3 (especially 0.1-0.2)% V, balance Al and NOTGREATER 0.2% total (NOTGREATER 0.02% each) impurities; or (b) 0.05-1.0 (especially 0.15-0.25)% Si, 0.05-0.2 (especially NOTGREATER 0.1)% Fe, 0.5-1.8 (especially 0.7-0.9)% Mn, 2.0-4.5 (especially 2.5-3.0)% Mg, NOTGREATER 0.2% Ti, NOTGREATER 0.1% Zn, 0.05-0.3 (especially 0.1-0.2)% V, balance Al and NOTGREATER 0.2% total (NOTGREATER 0.02% each) impurities.

IPC 1-7

C22C 21/00; **C22C 21/06**

IPC 8 full level

C22C 21/00 (2006.01); **C22C 21/06** (2006.01)

CPC (source: EP)

C22C 21/00 (2013.01); **C22C 21/06** (2013.01)

Cited by

DE102009032588A1; DE10310453A1; CN103421992A; EP1111077A1; CN105215314A; US6607616B2; US10590518B2

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EP 0918096 A1 19990526; **EP 0918096 B1 20030326**; BR 9804708 A 19991109; CZ 376298 A3 19991117; DE 59709639 D1 20030430; ES 2192258 T3 20031001; HU 220129 B 20011128; HU 9802625 D0 19990128; HU P9802625 A1 19990928; PL 329758 A1 19990524; PT 918096 E 20030630

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