

Title (en)

Alloy composition for making blister-free aluminum forgings and parts made therefrom

Title (de)

Legierungszusammensetzung zur Herstellung blasenfreier Aluminium-Schmiedestücke und daraus hergestellter Teile

Title (fr)

Composition en alliage des pièces forgées en aluminium sans soufflures

Publication

EP 1281781 A1 20030205 (EN)

Application

EP 02016501 A 20020723

Priority

US 91635001 A 20010730

Abstract (en)

An aluminum alloy, which is more resistant to high temperature oxidation-type blistering, comprises: about 0.65-0.9 wt.% silicon, about 4-4.7 wt.% copper, about 0.6-0.9 wt.% manganese, about 0.35-0.55 wt.% magnesium, up to about 0.15 wt.% iron and a balance of aluminum, incidental elements and impurities. By reducing iron content, the invention has reduced scrap rates in some forging part lines to 0%. An improvement in fracture toughness performance was also observed. <IMAGE>

IPC 1-7

C22C 21/12

IPC 8 full level

C22C 21/16 (2006.01)

CPC (source: EP US)

C22C 21/16 (2013.01 - EP US)

Citation (search report)

- [XY] US 2885315 A 19590505 - MILLIKEN SPENCER R
- [X] GB 863051 A 19610315 - ALUMINUM CO OF AMERICA
- [X] GB 2065516 A 19810701 - SHOWA ALUMINIUM IND
- [X] GB 843426 A 19600804 - ALUMINUM CO OF AMERICA
- [Y] J.R. DAVIS: "ASM Speciality Handbook, Aluminum and Aluminum Alloys", ASM INTERNATIONAL, 3-RD PRINTING 1996, USA, ISBN: 0-87170-496-X, XP002216666
- [X] PATENT ABSTRACTS OF JAPAN vol. 011, no. 069 (C - 407) 3 March 1987 (1987-03-03)

Cited by

CN104911424A; CN110157965A; CN104911419A; EP2942412B1

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