

Title (en)  
MANUFACTURING METHOD OF AIRCRAFT MEMBER

Title (de)  
VERFAHREN ZUR HERSTELLUNG EINES FLUGZEUGELEMENTS

Title (fr)  
PROCÉDÉ DE FABRICATION D'UN ÉLÉMENT D'AÉRONEF

Publication  
**EP 4071258 A1 20221012 (EN)**

Application  
**EP 21209865 A 20211123**

Priority  
JP 2021066471 A 20210409

Abstract (en)  
The present disclosure intends to provide a manufacturing method that enables stable acquisition of a magnesium alloy member having both good strength and ductility regardless of a billet size. A manufacturing method of an aircraft member according to the present disclosure is a manufacturing method of an aircraft member to perform extrusion processing by using an Mg-Al-Ca based alloy containing (Mg, Al)<sub>2</sub>Ca compound, and the manufacturing method includes: selecting a billet of an Mg-Al-Ca based alloy containing Al: greater than or equal to 6 atom% and less than or equal to 8 atom% and Ca: greater than or equal to 3 atom% and less than or equal to 4 atom% with respect to the whole amount; and extruding the billet under a condition where a temperature of the billet is maintained to be lower than a melting temperature of the (Mg, Al)<sub>2</sub>Ca.

IPC 8 full level  
**C22C 23/02** (2006.01); **B64C 1/00** (2006.01); **C22F 1/06** (2006.01)

CPC (source: EP)  
**C22C 23/02** (2013.01); **C22F 1/06** (2013.01)

Citation (applicant)  
• JP 2008536013 A 20080904  
• JP 2010209452 A 20100924 - SUMITOMO ELECTRIC INDUSTRIES

Citation (search report)  
• [XPA] WO 2021157748 A1 20210812 - UNIV KUMAMOTO NAT UNIV CORP [JP]  
• [A] US 2016369378 A1 20161222 - KAWAMURA YOSHIHITO [JP], et al  
• [AP] WO 2021070905 A1 20210415 - MITSUBISHI HEAVY IND LTD [JP], et al

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 4071258 A1 20221012**; **EP 4071258 B1 20240117**; JP 2022161560 A 20221021; JP 7356116 B2 20231004

DOCDB simple family (application)  
**EP 21209865 A 20211123**; JP 2021066471 A 20210409