

Title (en)
APPARATUS AND METALLURGICAL PROCESS FOR THE PREPARATION AND FEEDING OF SEMI-SOLID MAGNESIUM ALLOYS IN A QUASI-LIQUID STATE FOR CASTING INJECTION MACHINES

Title (de)
GERÄT UND METALLURGISCHES VERFAHREN ZUR HERSTELLUNG UND FÜTTERUNG VON HALBFESTEN MAGNESIUM-LEGIERUNGEN IN EINEM QUASI-LIQUID-ZUSTAND ZU GUSSINJEKTIONSMASCHINEN

Title (fr)
APPAREIL ET PROCÉDÉ MÉTALLURGIQUE POUR LA PRÉPARATION ET L'ALIMENTATION DES ALLIAGES SEMI-SOLIDES DE MAGNÉSIUM DANS UN ÉTAT QUASI-LIQUIDE POUR MACHINES DE COULÉE À INJECTION

Publication
EP 3831509 B1 20220720 (EN)

Application
EP 20211682 A 20201203

Priority
IT 201900023061 A 20191205

Abstract (en)
[origin: EP3831509A1] An object of the present invention is an apparatus and a metallurgical process for the preparation of a semi-solid magnesium alloy in a quasi-liquid state wherein the alloy is stirred under isothermal conditions by electromagnetic stirring and/or magnetic stirring with permanent magnets, such that to provide a highly uniform magnesium alloy to the subsequent process of casting injection such as, e.g., die-casting, or objects highly-defined in terms of shape and details.Said processes being carried out under safety conditions, which do not involve the use of known highly polluting protective gas.

IPC 8 full level
B22D 1/00 (2006.01); **B22D 2/00** (2006.01); **B22D 17/00** (2006.01); **B22D 17/28** (2006.01); **B22D 17/30** (2006.01); **B22D 21/00** (2006.01); **B22D 39/00** (2006.01); **B22D 39/04** (2006.01); **B22D 39/06** (2006.01); **C22B 9/00** (2006.01); **C22C 1/00** (2006.01); **C22C 1/02** (2006.01); **C22C 23/00** (2006.01)

CPC (source: EP)
B22D 1/002 (2013.01); **B22D 2/006** (2013.01); **B22D 17/007** (2013.01); **B22D 17/28** (2013.01); **B22D 17/30** (2013.01); **B22D 21/007** (2013.01); **B22D 39/003** (2013.01); **B22D 39/04** (2013.01); **B22D 39/06** (2013.01); **C22B 9/006** (2013.01); **C22C 1/02** (2013.01); **C22C 1/12** (2023.01); **C22C 23/00** (2013.01)

Cited by
CN113953498A

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

DOCDB simple family (publication)
EP 3831509 A1 20210609; **EP 3831509 B1 20220720**; IT 201900023061 A1 20210605

DOCDB simple family (application)
EP 20211682 A 20201203; IT 201900023061 A 20191205