

Title (en)

PROCESS FOR MANUFACTURING A BIMETALLIC PART USING A DILATION-CAUSING THERMAL TREATMENT

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES BIMETALLTEILS UNTER VERWENDUNG EINER DILATATIONSHERVORRUFENDEN THERMISCHEN BEHANDLUNG

Title (fr)

PROCÉDÉ DE FABRICATION D'UNE PIÈCE BI-METALLIQUE, METTANT EN OEUVRE UN TRAITEMENT THERMIQUE INDUISANT UNE DILATATION

Publication

EP 3818185 A1 20210512 (FR)

Application

EP 19791307 A 20190627

Priority

- FR 1856132 A 20180703
- FR 2019051597 W 20190627

Abstract (en)

[origin: WO2020008129A1] The invention relates to a process for manufacturing a bimetallic part by means of a first component formed by a first aluminum alloy and a second component formed by a second aluminum alloy, said process involving the following steps: - assemble the first component and the second component so as to obtain an assembled part; - applying a thermal treatment to the assembled part at a temperature of 100 to 250°C, the thermal treatment causing the assembled part to deform, in particular as a result of a metallurgical deformation by a precipitation of hardening phases of the first component and/or the second component; - cooling the part to ambient temperature, upon which the part remains deformed. The disclosed process is characterized in that it involves, prior to the assembling step, an estimation of the degree of deformation that the assembled part will undergo under the effect of the thermal treatment.

IPC 8 full level

C21D 9/50 (2006.01); **B23K 20/12** (2006.01); **B64C 3/18** (2006.01); **C22F 1/04** (2006.01); **B23K 101/28** (2006.01); **B23K 103/10** (2006.01)

CPC (source: EP KR US)

B23K 20/12 (2013.01 - KR); **B23K 20/2336** (2013.01 - US); **B64C 3/18** (2013.01 - KR); **C21D 9/50** (2013.01 - EP KR); **C21D 9/505** (2013.01 - US); **C22F 1/04** (2013.01 - EP KR); **G16C 60/00** (2019.02 - US); **B23K 2101/006** (2018.08 - US); **B23K 2101/28** (2018.08 - KR); **B23K 2103/10** (2018.08 - KR US)

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)

WO 2020008129 A1 20200109; BR 112020025687 A2 20210316; BR 112020025687 B1 20231010; EP 3818185 A1 20210512; FR 3083630 A1 20200110; FR 3083630 B1 20201127; JP 2021529093 A 20211028; JP 7357014 B2 20231005; KR 20210027369 A 20210310; US 2021238706 A1 20210805

DOCDB simple family (application)

FR 2019051597 W 20190627; BR 112020025687 A 20190627; EP 19791307 A 20190627; FR 1856132 A 20180703; JP 2020570197 A 20190627; KR 20217001182 A 20190627; US 201916973111 A 20190627