

Title (en)

METHOD AND SYSTEM FOR FORMING ALUMINUM ALLOY BLANK

Title (de)

VERFAHREN UND SYSTEME ZUR HERSTELLUNG EINES ALUMINIUMLEGIERUNGSROHLINGS

Title (fr)

PROCÉDÉ ET SYSTÈME DE FORMATION D'ÉBAUCHE D'ALLIAGE D'ALUMINIUM

Publication

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Application

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Priority

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Abstract (en)

The present invention relates to a method of forming a 6xxx or 7xxx series Al alloy blank is provided. The method comprises the steps of heating the blank to a solutionization (SHT) temperature, T SHT , for the alloy of the blank at a heating station and keeping the blank at said SHT temperature until SHT is complete, cooling the blank at a cooling station to an intermediate temperature, T ITM , at which the kinetic movement for the alloy in the blank stops and at a cooling rate that is high enough such that re-crystallization in the alloy of the blank does not occur, forming the blank in a forming tool, quenching the formed blank to room temperature, T E , and artificially ageing the formed and quenched blank in an ageing station. The present invention further relates to a 6xxx or 7xxx series Al alloy blank forming system (1, 3).

IPC 8 full level

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Citation (applicant)

- WO 2010032002 A1 20100325 - UNIV BIRMINGHAM [GB], et al
- WO 2015136299 A2 20150917 - IMP INNOVATIONS LTD [GB], et al

Citation (search report)

- [XJ] EP 2987878 A2 20160224 - BENTELER AUTOMOBILTECHNIK GMBH [DE]
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- [A] WO 2017021742 A1 20170209 - IMP INNOVATIONS LTD [GB]
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EP 3467138 A1 20190410; **EP 3467138 B1 20211124**; CA 3084330 A1 20190411; CN 111315910 A 20200619; ES 2906633 T3 20220419; JP 2020536166 A 20201210; KR 20200110737 A 20200925; MX 2020003344 A 20200728; PL 3467138 T3 20220404; PT 3467138 T 20220221; US 2020299818 A1 20200924; WO 2019068767 A1 20190411

DOCDB simple family (application)

EP 17194723 A 20171004; CA 3084330 A 20181003; CN 201880061712 A 20181003; EP 2018076913 W 20181003; ES 17194723 T 20171004; JP 2020517798 A 20181003; KR 20207011254 A 20181003; MX 2020003344 A 20181003; PL 17194723 T 20171004; PT 17194723 T 20171004; US 201816652908 A 20181003