

Title (en)

ALUMINIUM CASTING ALLOY, A PROCESS FOR THE MANUFACTURE OF AN ENGINE COMPONENT, ENGINE COMPONENT AND THE USE OF AN ALUMINIUM CASTING ALLOY FOR THE MANUFACTURE OF AN ENGINE COMPONENT

Title (de)

ALUMINIUM-GUSSLEGIERUNG, VERFAHREN ZUR HERSTELLUNG EINES MOTORBAUTEILS, MOTORBAUTEIL UND VERWENDUNG EINER ALUMINIUM- GUSSLEGIERUNG ZUR HERSTELLUNG EINES MOTORBAUTEILS

Title (fr)

ALLIAGE D'ALUMINIUM, PROCÉDÉ DE FABRICATION D'UN COMPOSANT D'UN MOTEUR, COMPOSANT D'UN MOTEUR ET SON PROCÉDÉ DE FABRICATION

Publication

EP 3277854 A1 20180207 (DE)

Application

EP 16710767 A 20160321

Priority

- DE 102015205895 A 20150401
- EP 2016056123 W 20160321

Abstract (en)

[origin: WO2016156084A1] The application relates to a cast aluminum alloy, to a method for producing an engine component, in particular a piston for an internal combustion engine, wherein a cast aluminum alloy is cast in the gravity permanent-mold casting method, to an engine component, in particular a piston for an internal combustion engine, at least partially consisting of a cast aluminum alloy, and to the use of a cast aluminum alloy to produce an engine component, in particular a piston for an internal combustion engine. The cast aluminum alloy consists of the following alloying elements: silicon: 9.0 wt% to < 10.5 wt%, nickel: 0.8 wt% to < 1.9 wt%, copper: 1.8 wt% to < 3.6 wt%, magnesium: 0.5 wt% to 1.8 wt%, iron: 0.9 wt% to < 1.4 wt%, zirconium and/or vanadium: in each case, 0.05 to <= 0.3 or 0.2%, respectively, manganese: up to <= 0.4 wt%, titanium: up to <= 0.15 wt%, phosphorus: up to <= 0.05 wt%, and aluminum and unavoidable impurities as the remainder.

IPC 8 full level

C22C 21/02 (2006.01); **C22C 21/04** (2006.01)

CPC (source: EP KR US)

C22C 21/02 (2013.01 - EP KR US); **F02F 3/00** (2013.01 - KR); **B22D 21/007** (2013.01 - EP US); **F02F 3/00** (2013.01 - EP US); **F02F 3/0084** (2013.01 - US)

Citation (search report)

See references of WO 2016156084A1

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

DE 102015205895 A1 20161006; BR 112017021093 A2 20180703; CN 107532244 A 20180102; EP 3277854 A1 20180207; EP 3277854 B1 20190220; ES 2717520 T3 20190621; HU E043248 T2 20190828; JP 2018516310 A 20180621; KR 20170132196 A 20171201; MX 2017012330 A 20171218; PL 3277854 T3 20190628; US 2018094337 A1 20180405; WO 2016156084 A1 20161006

DOCDB simple family (application)

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