

Title (en)

CASTING MADE FROM COPPER CONTAINING ALUMINIUM ALLOY WITH HIGH MECHANICAL STRENGTH AND HOT CREEP

Title (de)

FORMTEIL AUS CU ENTHALTENDER ALUMINIUM-LEGIERUNG MIT HOHEN MECHANISCHER FESTIGKEIT UND WARMEM KRIECHEN

Title (fr)

PIÈCE MOULÉE EN ALLIAGE D'ALUMINIUM AU CUIVRE À HAUTE RÉSISTANCE MÉCANIQUE ET AU FLUAGE À CHAUD

Publication

EP 2516687 A1 20121031 (FR)

Application

EP 10799072 A 20101207

Priority

- FR 0906218 A 20091222
- FR 2010000812 W 20101207

Abstract (en)

[origin: WO2011083209A1] The invention relates to a molded part having high mechanical strength and hot creep resistance, which is made of cast aluminum alloy having the following chemical composition: Si: 0.02 - 0.50 %, Fe: 0.02 - 0.30 %, Cu: 3.5 - 4.9 %, Mn: < 0.70 %, Mg: 0.05 - 0.20 %, Zn: < 0.30 %, Ni: < 0.30 %, V: 0.05 - 0.30 %, Zr: 0.05 - 0.25 %, Ti: 0.01 - 0.35 %, other elements totaling < 0.15% and 0.05% each, the remainder being aluminum. The invention also relates specifically to supercharged diesel or gasoline internal combustion engine cylinder heads.

IPC 8 full level

C22C 21/12 (2006.01); **B22D 19/00** (2006.01); **C22C 21/16** (2006.01); **F02F 1/24** (2006.01)

CPC (source: EP KR US)

B22D 21/007 (2013.01 - EP US); **C22C 21/12** (2013.01 - EP KR US); **C22C 21/14** (2013.01 - EP KR US); **C22C 21/16** (2013.01 - EP KR US); **C22F 1/057** (2013.01 - KR)

Citation (search report)

See references of WO 2011083209A1

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)

FR 2954355 A1 20110624; FR 2954355 B1 20120224; BR 112012016917 A2 20160412; CA 2812236 A1 20110714; CA 2812236 C 20180327; EP 2516687 A1 20121031; EP 2516687 B1 20160810; ES 2601809 T3 20170216; JP 2013515169 A 20130502; JP 5758402 B2 20150805; KR 101757013 B1 20170711; KR 20120114316 A 20121016; MX 2012006988 A 20120703; PL 2516687 T3 20170731; US 2012258010 A1 20121011; WO 2011083209 A1 20110714

DOCDB simple family (application)

FR 0906218 A 20091222; BR 112012016917 A 20101207; CA 2812236 A 20101207; EP 10799072 A 20101207; ES 10799072 T 20101207; FR 2010000812 W 20101207; JP 2012545367 A 20101207; KR 20127019244 A 20101207; MX 2012006988 A 20101207; PL 10799072 T 20101207; US 201013516799 A 20101207