

Title (en)
AN AUTOMOTIVE SUSPENSION PART AND METHOD FOR PRODUCING SAME

Title (de)
FEDERUNGSTEIL UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)
PIÈCE DE SUSPENSION ET SON PROCÉDÉ DE PRODUCTION

Publication
EP 3124633 A1 20170201 (EN)

Application
EP 15770178 A 20150313

Priority
• JP 2014066679 A 20140327
• JP 2014258032 A 20141219
• JP 2015057581 W 20150313

Abstract (en)
Provided are: a forged aluminum alloy that offers high strength and high toughness and still has excellent corrosion resistance even when having a smaller thickness; and a method for producing the forged aluminum alloy. The forged aluminum alloy contains Mg in a content of 0.70 to 1.50 mass percent, Si in a content of 0.80 to 1.30 mass percent, Cu in a content of 0.30 to 0.90 mass percent, Fe in a content of 0.10 to 0.40 mass percent, Ti in a content of 0.005 to 0.15 mass percent, and at least one element selected from the group consisting of Mn in a content of 0.10 to 0.60 mass percent, Cr in a content of 0.10 to 0.45 mass percent, and Zr in a content of 0.05 to 0.30 mass percent, with the remainder consisting of Al and inevitable impurities. The forged aluminum alloy has a major axis of Q phase of 50 to 500 nm in a maximum-stress-receiving region.

IPC 8 full level
B21J 5/00 (2006.01); **C22C 21/02** (2006.01); **C22C 21/06** (2006.01); **C22F 1/00** (2006.01); **C22F 1/05** (2006.01)

CPC (source: EP)
B21J 5/00 (2013.01); **B21K 1/74** (2013.01); **C22C 21/02** (2013.01); **C22C 21/06** (2013.01); **C22C 21/08** (2013.01); **C22F 1/043** (2013.01); **C22F 1/047** (2013.01); **C22F 1/05** (2013.01)

Cited by
US11207760B2; EP3737527A4; US11519058B2; US11420249B2; US11932928B2; DE102017116556A1; WO2019016394A1;
DE102017116556B4; WO2017106665A1; US10513766B2; US11920229B2

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

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DOCDB simple family (publication)
EP 3124633 A1 20170201; **EP 3124633 A4 20171025**; **EP 3124633 B1 20191204**; CN 106103765 A 20161109; CN 106103765 B 20191108;
JP 2015193903 A 20151105; JP 5901738 B2 20160413; WO 2015146654 A1 20151001

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EP 15770178 A 20150313; CN 201580014882 A 20150313; JP 2014258032 A 20141219; JP 2015057581 W 20150313