

Title (en)

CASTING MADE FROM ALUMINIUM ALLOY, HAVING HIGH HOT CREEP AND FATIGUE RESISTANCE

Title (de)

GUSS AUS ALUMINIUMLEGIERUNG MIT HOHER HEISSKRIECHFESTIGKEIT UND ERMÜDUNGSBESTÄNDIGKEIT

Title (fr)

PIÈCE MOULÉE EN ALLIAGE D'ALUMINIUM À HAUTES RÉSIDANCES À LA FATIGUE ET AU FLUAGE À CHAUD

Publication

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Application

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Abstract (en)

[origin: WO2010012875A1] The invention relates to a casting with high mechanical resistance under both static and fatigue conditions and under hot creep, made from an aluminium alloy having the following composition: 3 - 11% Si, preferably 5 - 9%; < 0.5% Fe, preferably < 0.3%, more preferably < 0.19% or even 0.12%; 2 - 5% Cu, preferably 2.5 - 4.2%, more preferably 3 - 4%; 0.05 - 0.5% Mn, preferably 0.08 - 0.2%; 0.1 - 0.25% Mg, preferably 0.1 - 0.2%; < 0.3% Zn, preferably < 0.1%; < 0.3% Ni, preferably < 0.1%; 0.05 - 0.2% V, preferably 0.1 - 0.19%; 0.05 - 0.25% Zr, preferably 0.08 - 0.2%; 0.01 - 0.25% Ti, preferably 0.05 - 0.2%; and < 0.05% of each of the other elements and 0.15% in total, the remainder being aluminium. In particular, the invention relates to cylinder heads of supercharged diesel or petrol internal combustion engines.

IPC 8 full level

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