

Title (en)
METHOD FOR PRODUCING A HEAVY-DUTY COMPONENT MADE OF AN ALPHA+GAMMA TITANIUM ALUMINIDE ALLOY FOR PISTON ENGINES AND GAS TURBINES, IN PARTICULAR JET ENGINES

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES HOCHBELASTBAREN BAUTEILS AUS EINER ALPHA+GAMMA-TITANALUMINID-LEGIERUNG FÜR KOLBENMASCHINEN UND GASTURBINEN, INSBESONDERE FLUGTRIEBWERKE

Title (fr)
PROCEDE DE PRODUCTION D'UN COMPOSANT TRES RESISTANT EN ALLIAGE D'ALUMINURE DE TITANE ALPHA+GAMMA POUR MACHINES A PISTON ET TURBINES A GAZ, EN PARTICULIER GROUPES MOTOPROPULSEURS

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Application
EP 16153407 A 20160129

Priority
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Abstract (en)
[origin: JP2016166418A] PROBLEM TO BE SOLVED: To provide a method for production of a highly stressable component from an α + γ - titanium aluminide alloy. SOLUTION: There is provided the method for production of a highly stressable component from an α + γ - titanium aluminide alloy for a reciprocating-piston engine and a gas turbine, especially an aircraft engine. The alloy used is a TiAl alloy having a composition containing, by atom%, Al:40 to 48%, Nb:2 to 8%, at least one kind of β -phase-stabilization element selected from Mo, V, Ta, Cr, Mn, Ni, Cu, Fe, Si:0.1 to 9%, B:0 to 0.5% and the balance Ti and smelting-related impurities, wherein deformation is carried out in a single stage starting from a preform with a volume distribution varying over the longitudinal axis, wherein the component is deformed isothermally in the β -phase region at a logarithmic deformation rate of 0.01 to 0.5 s. SELECTED DRAWING: None

IPC 8 full level
C22C 14/00 (2006.01); **C22F 1/18** (2006.01)

CPC (source: EP US)
C21D 1/26 (2013.01 - EP US); **C21D 1/30** (2013.01 - EP US); **C21D 8/00** (2013.01 - EP US); **C21D 9/0068** (2013.01 - EP US); **C22C 14/00** (2013.01 - EP US); **C22C 30/00** (2013.01 - EP US); **C22F 1/002** (2013.01 - EP US); **C22F 1/02** (2013.01 - EP US); **C22F 1/16** (2013.01 - EP US); **C22F 1/183** (2013.01 - EP US)

Citation (opposition)
Opponent :

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DOCDB simple family (publication)
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