

Title (en)  
PROCESS FOR MAKING A TITANIUM ALLOY COMPONENT, AND COMPONENT OBTAINED

Publication  
**EP 0287486 B1 19910206 (FR)**

Application  
**EP 88420121 A 19880413**

Priority  
FR 8705786 A 19870416

Abstract (en)  
[origin: US4854977A] The process according to the invention comprises the following stages: (a) an ingot of the following composition is produced (% by weight): Al 3.8 to 5.4, Sn 1.5 to 2.5, Zr 2.8 to 4.8, Mo 1.5 to 4.5, Cr<2.5 and Cr+V 1.5 to 4.5, Fe<2.0, Si<0.3, O<0.15, the remainder being Ti and impurities; (b) the ingot undergoes hot working, comprising a rough-shaping and then a final working preceded by preheating in the beta range; (c) the blank of the part obtained is solid solution heat treated by maintaining it at a temperature 10 DEG to 40 DEG C. lower than its real "beta transus"; (d) ageing for 4 to 12 h at between 550 DEG and 650 DEG C. is then carried out on the blank of the part or the part itself. The invention also relates to the process and the parts obtained under preferred conditions, said parts having in particular a good mechanical strength (Rm and Rp0.2 respectively at least equal to 1200 and 1100 MPa), a good tenacity and a good creep resistance at 400 DEG C. (under 600 MPa, elongation of 0.5% in more than 200 h).

IPC 1-7  
**C22C 14/00**; **C22F 1/18**

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

CPC (source: EP US)  
**C22C 14/00** (2013.01 - EP US); **C22F 1/183** (2013.01 - EP US)

Cited by  
EP0843021A1; CN106591625A; EP0487803A1; AU2010343097B2; CN109295342A; EP0514293A1; FR2676460A1; CN110846536A; CN114934210A; WO2011090733A3

Designated contracting state (EPC)  
DE ES FR GB IT NL SE

DOCDB simple family (publication)  
**EP 0287486 A1 19881019**; **EP 0287486 B1 19910206**; BR 8801837 A 19881122; CA 1314792 C 19930323; DD 281422 A5 19900808; DE 3861736 D1 19910314; ES 2020341 B3 19910801; FR 2614040 A1 19881021; FR 2614040 B1 19890630; IL 86029 A0 19880930; IL 86029 A 19910916; JP H07116577 B2 19951213; JP S63277745 A 19881115; US 4854977 A 19890808; US 4878966 A 19891107; ZA 882635 B 19881003

DOCDB simple family (application)  
**EP 88420121 A 19880413**; BR 8801837 A 19880415; CA 563913 A 19880412; DD 31470288 A 19880413; DE 3861736 T 19880413; ES 88420121 T 19880413; FR 8705786 A 19870416; IL 8602988 A 19880411; JP 9327188 A 19880415; US 18171588 A 19880414; US 26279288 A 19881026; ZA 882635 A 19880414