

Title (en)  
METHOD FOR FABRICATION OF A STRUCTURAL ELEMENT FOR AERONAUTICAL CONSTRUCTION INCLUDING A DIFFERENTIAL WORK HARDENING

Title (de)  
HERSTELLUNGSPROZESS EINES STRUKTURELEMENTS FÜR DIE FLUGZEIGKONSTRUKTION, WELCHER DIFFERENTIALFESTWALZEN ENTHÄLT

Title (fr)  
PROCÉDÉ DE FABRICATION D'UN ÉLÉMENT DE STRUCTURE POUR CONSTRUCTION AÉRONAUTIQUE COMPRENANT UN ÉCROUISSAGE DIFFÉRENTIEL

Publication  
**EP 2010689 B1 20171025 (FR)**

Application  
**EP 07731300 A 20070416**

Priority

- FR 2007000633 W 20070416
- FR 0603567 A 20060421
- US 80355306 P 20060531

Abstract (en)  
[origin: US2007246137A1] A process for fabricating a worked product or a monolithic multi-functional structural element comprising aluminium alloy includes a hot working step and at least one transformation step by cold plastic deformation after the hot transformation step. At least two zones of the structural element have imposed generalized average plastic deformations and the imposed deformations are different by at least 2%. Structural elements can be fabricated, particularly for aeronautical construction, with properties that are variable while their geometric characteristics are identical to those of existing components. The process is economic and controllable, and properties can be varied for parts not requiring any artificial ageing.

IPC 8 full level  
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Citation (examination)

- EP 0062469 A1 19821013 - SUMITOMO LIGHT METAL IND [JP]
- US 5496426 A 19960305 - MURTHA SHAWN J [US]

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