

Title (en)

METHOD FOR MANUFACTURING A TITANIUM PART THROUGH INITIAL FORGING

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES TITANTEILS DURCH ANFÄNGLICHES SCHMIEDEN

Title (fr)

PROCEDE POUR LA FABRICATION D'UNE PIECE EN TITANE AVEC FORGEAGE INITIAL DANS LE DOMAINE

Publication

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Application

EP 09748423 A 20090922

Priority

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Abstract (en)

[origin: WO2010031985A1] The invention relates to a method for manufacturing a titanium alloy part and comprises: heating the part to a temperature T1 until the temperature of the part is substantially uniform, an operation for the initial forging of the part, immediately followed by tempering the part up to ambient temperature; heating the part to a temperature T2 followed by an operation for the final forging of the part to the temperature T2 then immediately followed by tempering the part, the final forging operation being capable of giving the part the final shape thereof, the temperature T1 being greater than the β -transus temperature of said alloy, the temperature T2 being lower than the β -transus temperature, the only heating of the part above the β -transus temperature being the heating to the temperature T1, the initial forging preceding the final forging, said initial forging being carried out once the temperature of the part is substantially uniform, the method being characterized in that the tempering immediately following the initial forging is carried out at a speed greater than 150° C/minute, and the deformation rate during the initial forging being greater than 0.7.

IPC 8 full level

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