

[54] METHOD FOR APPLYING AN ALUMINUM DIFFUSION COATING TO A COMPONENT OF TITANIUM ALLOY

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[21] Appl. No.: 283,746

[22] Filed: Dec. 13, 1988

[30] Foreign Application Priority Data

Dec. 17, 1987 [DE] Fed. Rep. of Germany ..... 3742721

[51] Int. Cl.<sup>5</sup> ..... C23C 10/00

[52] U.S. Cl. .... 148/13.1; 148/6; 148/421; 148/DIG. 33

[58] Field of Search ..... 148/DIG. 30, DIG. 33, 148/13.1, 133, 421.6, 781

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[57] ABSTRACT

Aluminum diffusion coatings are applied to structural components of titanium alloys by two separate heat treatment steps applied to the component embedded in an aluminum powder. The first heat treatment step is performed at relatively very low temperatures for avoiding an oxygen embrittlement of the structural component by any remainder oxygen. The subsequent diffusion heat treatment is performed at higher temperatures. If desired, a getter material having a high oxygen affinity, is added to the powder mixture in which the structural components are embedded for the first treatment. The getter material binds any remainder oxygen.

11 Claims, 3 Drawing Sheets

