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[54] **FRICTION AND WEAR RESISTANT COATING FOR TITANIUM AND ITS ALLOYS**

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[58] **Field of Search** 428/328, 329, 428/403, 407, 404, 689, 701, 702; 427/215, 221, 409, 410, 419.2, 419.5

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[57] **ABSTRACT**

For titanium and titanium alloys in tribological applications under boundary lubrication conditions, there are employed epoxy coatings adhered to the surface of the titanium or titanium alloy by a titanium oxide primer layer. The anti-wear properties of the epoxy coating can be improved by incorporation of an anti-wear filler such as diamond powder. These coatings improve the friction coefficient and anti-wear properties of the titanium and titanium alloys.

19 Claims, 1 Drawing Sheet