

ABSTRACT

BEARING CHAMBER WITH MAPPED THERMAL HEAT EXCHANGE FINS

A method of additively manufacturing a component is provided. The method includes generating a three-dimensional (3D) model of the component, generating a first heat map of the 3D model which is illustrative of first thermal effects the component is expected to experience during additive manufacturing, generating a second heat map of the 3D model which is illustrative of second thermal effects the component is expected to experience during operational use, updating the 3D model to include 3D heat exchange fin models for reducing each of the first and second thermal effects and updating the 3D model with the 3D heat exchange fin models to include 3D weight reduction cavity models for weight-neutralizing the 3D heat exchange fin models.

[Figure 2]