

Abstract**Method of repairing DLC-coated components and DLC-coated aircraft component**

The invention relates to a method of repairing DLC-coated components (1) and to a DLC-coated aircraft component (1).

The method comprises the steps of:

- evaporating and/or converting the DLC layer (8) by irradiation with a laser, wherein the properties of the laser radiation and the irradiation parameters are chosen such that the carrier material beneath the DLC layer (8) is not impaired; and
- cleaning the carrier material by blasting with a blasting agent that does not impair the carrier material.

The aircraft component (1) is a variable stator vane intended for use in an aircraft engine, comprising an aerodynamically shaped vane region (2) with the vane surface (3) and an axis of rotation (4), wherein bearing journals (5) for rotatable bearing in coaxially arranged bearing journal receivers are provided coaxially with the axis of rotation (4) at each end of the vane region, wherein the bearing journals (5) are each formed so as to protrude from a stop surface (6) for resting against an end face of the bearing journal receivers. The outer faces of the bearing journals (5) and stop surfaces (6) have been provided with a DLC layer (8) that can be repaired by a method according to the invention.

(Figure 2)