Claims

1. Method of repairing components (1) coated with a DLC layer (8), comprising 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 a 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.

2. Method according to Claim 1,
characterized in that
the blasting agent is nutshells.

3. Method according to Claim 2,
characterized in that
the blasting with nutshells is performed at a pressure of 1 to 10 bar, preferably of 1 to 5 bar, at an angle of 20° to 160°, preferably of 40° to 120°, at a distance from the component of 10 mm to 250 mm.

4. Method according to any of the preceding claims,
characterized in that
the carrier material is a tie layer (9) which is applied to a base material and is removed after the carrier material has been cleaned in a chemical method that does not impair the base material.

5. Method according to Claim 4,
characterized in that

the tie layer (9) is composed of chromium and is removed with sodium hydroxide solution under applied voltage.

6. Method according to Claim 5, characterized in that the voltage is 1 to 10 V, preferably 4 to 6 V, and/or the sodium hydroxide solution is a solution with 20 to 200 g/l, preferably 60 to 90 g/l, of sodium hydroxide.

7. Method according to any of the preceding claims, characterized in that cleaning of the carrier material or removal of the tie layer (9) is followed by application of a DLC layer (8) to the carrier material or a tie layer (9) applied to the base material beforehand.

8. Aircraft component (1) 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, characterized in that the outer faces of the bearing journals (5) and stop surfaces (6) have been provided with a DLC layer (8) that is repaired by a method according to any of the preceding claims.

9. Aircraft component (1) according to Claim 8, characterized in that a tie layer (9) of chromium is provided between outer faces

of the bearing journals (5) and/or stop surfaces (6) and DLC layer (8).

10. Aircraft component (1) according to either of Claims 8 and 9,
characterized in that
the DLC layer (8) is composed of ta-C.