

ABSTRACT

A METHOD OF RESTORING A METALLIC COMPONENT

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A component is repaired by removing a damaged region to form a cavity 12, in which layered repair inserts 18, 28 to 34 are installed. The profile of the cavity, and of the exposed surface 22 of each repair insert is measured to serve as the basis for the
10 contact surface 20 of each subsequent repair insert. The repair inserts are fused to the wall of the cavity 12 and to each other in a process in which heated locations 24 of each repair insert are successively heated to minimise heat transfer within the repair inserts and in the underlying substrate material. The repair inserts 18, 28 to 34 may be
15 made in a powder bed process from an alloy powder having the same composition as the material of the substrate 4.

Figure 3