



162162

PROCESS OF REMOVING A COATING DEPOSIT FROM A THROUGH-HOLE IN A COMPONENT AND COMPONENT PROCESSED THEREBY

ABSTRACT

A process of removing deposits (22) from through-holes (12) in a component (10), such as metallic bond coat and ceramic materials from cooling holes (12) in an air-cooled gas turbine engine. The process is particularly effective in removing a TBC material deposited in a cooling hole (12) of a component (10) as a result of depositing a coating (20) of the TBC material on a surface (14) of the component (10), in which the deposit (22) is removed from the cooling hole (12) without damaging the cooling hole (12) or the TBC coating (20) surrounding the cooling hole (12) on the coated surface (14) of the component (10). A preferred feature is that the cooling hole (12), including the entrance to the hole (12) at a surface (16) of the component (10) opposite the coated surface (14) and the coating (20) surrounding the exit of the hole (12) at the coated surface (14), exhibits improved surface characteristics that increase the discharge coefficient of the cooling hole (12), as evidenced by an increase in the effective area of the cooling hole (12).

Fig. 8



G00002