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COATING OF A DISCRETE SELECTIVE SURFACE OF AN ARTICLE

ABSTRACT

A method for restoring or enhancing an environmental resistant coating 22 of a coating total thickness within a coating design thickness range on a metal substrate 20 of an article 10 includes the application of a restoring or enhancing metal 30 to at least one discrete local surface area 28,29. Then at least the discrete local surface area 28,29 is coated with an environmental resistant coating 32. For use of the method to restore a coating 22 on an article 10 which has experienced service operation and the discrete surface area 28,29 includes an undesirable amount of oxidation/corrosion products, the oxidation/corrosion products first are removed from an outer portion 24 of the coating 22 while retaining a coating 22 present at the discrete surface areas 28,29 and retaining the entire coating 22 on surface areas adjacent the discrete surface areas 28,29. Then the restoration metal 30 is applied. For use of the method to enhance an existing coating 22, at least one discrete surface area 28,29 is selected based on an oxidation/corrosion attack pattern 16,18 identified from similar articles 10 which experienced service operation in apparatus of a design for which the article 10 is intended. Then the enhancing metal 30 is applied to the selected area 28,29.

Figure 1