

REPAIR OF STRUCTURES USING UNMANNED AERIAL VEHICLES

ABSTRACT

5 Methods and apparatus for performing repair operations using an unmanned aerial vehicle (UAV 2). The methods are enabled by equipping the UAV with tools (68, 70, 72, 74) for rapidly repairing a large structure or object (e.g., an aircraft or a wind turbine blade) that is not easily accessible to maintenance personnel. A plurality of tools are available for robotic selection and placement at the repair site (9). The tools are designed to perform respective repair operations in sequence in accordance with a specified repair plan, which plan may take into account the results of a previously performed UAV-enabled inspection.

Fig. 1