Claims

WHAT IS CLAIMED IS:

1. An apparatus for servicing internal components of an aircraft engine, the apparatus comprising:

a flexible hollow tube;

a latching mechanism connected to or incorporated with the flexible hollow tube;

a servicing device to be inserted through the flexible hollow tube, the servicing device being freely moveable through the flexible hollow tube and decoupled from the latching mechanism;

wherein the flexible hollow tube is shaped and configured so as to enable proximate positioning of the flexible hollow tube with respect to a rotatable component of an aircraft engine allowing attachment of the flexible hollow tube to the rotatable component via the latching mechanism after the flexible hollow tube is inserted through an entry port of the aircraft engine; and

wherein the latching mechanism is configured to be attached to the rotatable component when the rotatable component is rotated.

2. The apparatus of claim 1, wherein the latching mechanism comprises a hook.

3. The apparatus of claim 2, wherein the hook is integrally formed with the flexible hollow tube.

4. The apparatus of claim 1, wherein the latching mechanism comprises a wedge mechanism.

5. The apparatus of claim 1, further comprising an adapter, the adapter to be positioned at least partially within the aircraft engine and being configured to provide a guide path for the flexible hollow tube after being inserted at the entry port.

6. The apparatus of claim 1, wherein the flexible hollow tube comprises openings at a distal end of the flexible hollow tube.

7. The apparatus of claim 1, wherein the servicing device is removed from the flexible hollow tube and another servicing device is inserted into the flexible hollow tube while the flexible hollow tube remains in the aircraft engine.

8. The apparatus of claim 1, wherein the flexible hollow tube is constructed of Silicone rubber or Thermoplastic elastomers (TPEs).

9. The apparatus of claim 1, wherein the servicing device is a borescope.

10. The apparatus of claim 9, wherein the borescope includes a camera.

11. A method for servicing internal components of an aircraft engine, the method comprising:

inserting a flexible hollow tube into a port in an aircraft engine, the flexible hollow tube having a latching mechanism connected to or incorporated with the flexible hollow tube;

positioning the flexible hollow tube proximate to a rotatable component of the aircraft engine;

attaching the flexible hollow tube to the rotatable component via the latching mechanism;

inserting a servicing device through the flexible hollow tube, the servicing device being freely moveable through the flexible hollow tube and decoupled from the latching mechanism; and

rotating the rotatable component to cause the latching mechanism to attach to the rotatable component.

12. The method of claim 11, wherein the latching mechanism comprises a hook or a wedge mechanism.

13. The method of claim 11, further comprising positioning an adapter at least partially within the aircraft engine so as to provide a guide path for the flexible hollow tube after being inserted at an entry port.

14. The method of claim 11, wherein the rotatable component is a plurality of blades and the latching mechanism couples to a trailing edge of the one or more of the plurality of blades.

15. The method of claim 11, wherein the rotatable component is a plurality of blades and the latching mechanism couples to a leading edge of the one or more of the plurality of blades.

16. The method of claim 11, further comprising removing the servicing device from the flexible hollow tube and inserting another servicing device into the flexible hollow tube while the flexible hollow tube remains in the aircraft engine.

17. The method of claim 11, wherein the flexible hollow tube is constructed of Silicone rubber or Thermoplastic elastomers (TPEs).

18. The method of claim 11, wherein the servicing device is a borescope.

19. The method of claim 18, wherein the borescope includes a camera and an image is taken of a shroud of the aircraft engine.