

INSTALLATION INSTRUCTIONS
FOR EXHAUST CUFF
MODIFICATION

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Notes:

1. The cuff must be installed onto the aircraft prior to painting. Once installed the cuff may be easily removed and then painted to match your aircraft.
 2. Care must be exercised when match drilling the brackets to the airframe to ensure that no wires, fluid lines or components are damaged with the drill.
 3. Installation should be accomplished by a FAA Repair Station or a certificated A&P mechanic.
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Part Number	Description	Qty
SKP2005-1	Aluminum Cuff	1
SKP2003	Forward Brace	1
AN363-832	Lock Nut	4
AN526-832R4	Screw	1
AN526-832R8	Screw	4

Installation

Step 1. Clean the surface of the aircraft skin approximately 1 square foot about the exhaust opening. Using a non-permanent felt marker draw a vertical line centered about the exhaust pipe onto the lower cowl as shown in Photo1 (Model F-H) and Photo 2 (Model J and on).



Photo 1



Photo 2

Step 2. Open Nose gear doors completely. Using a non-permanent marker, draw a line onto the lower belly skin following the R/H gear door as shown in Photo 3. The doors can then be closed for ease of installation.



Photo 3

Note: An assistant is required in the following steps to ensure proper fit and location of the cuff.

Step 3. Obtain the cuff assembly, P/N SKP2005-1 and align the vertical black mark on the cuff (associated with the model of aircraft to be installed) to the vertical mark on the aircraft. Position the cuff so that it covers the opening in the cowl by at least $\frac{1}{2}$ inch and that the cuff is positioned parallel to the horizontal lines of the aircraft (See Photo 4 model F-H and Photo 5 for model J and on). Assistant should step back away from the aircraft to view. While holding in position, verify that the cuff extends between $\frac{1}{4}$ inch up to $1\frac{1}{2}$ inch beyond the tip of the pipe. (See Photo 6).



Photo 4



Photo 5



Photo 6

Step 4. Next using a non-permanent marker, outline the outer and forward sections about the cuff using a non-permanent marker as shown in Photo 7 & 8 for Models F-H and Photo 9 &10 for Model J and on.



Photo 7



Photo 8



Photo 9

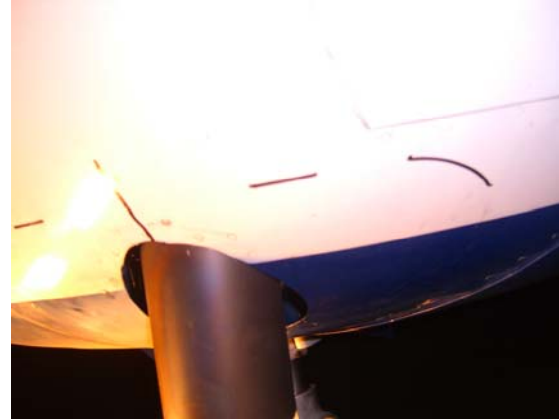


Photo 10

Step 5. Re-position the cuff to match the outline on the aircraft and using a #40 drill bit match drill the cowl to the aft hole in the cuff as shown in Photo 11.



Photo 11

Step 6. Remove the protective backing from the tape on the forward mounting bracket as shown in Photo 12. Using a #40 cleco, pin the aft hole of the cuff to the drilled hole in the cowl. Carefully press the cuff against the skin of the aircraft starting from the aft hole forward. Use care to follow the marker lines on the skin of the aircraft. Work the cuff forward with both hands minimizing any gaps between the skin and the cuff. Firmly press the forward section of the cuff against the skin so to cause the adhesive tape to stick into position on the aircraft skin. (See Photo 13) Maintain pressure against the cuff with hands at all times. Remove the screw in the forward section of the cuff and the cleco removing the cuff from the aircraft. The forward bracket will remain on the aircraft skin as shown in Photo 14. Use care not to disturb the position of the bracket.



Photo 12



Photo 13



Photon 14

Step 7. Using a #40 drill, carefully match drill the aircraft skin to the two holes in the forward bracket. (See Photo 15). Remove the bracket, remove the tape, open the holes in the bracket and skin to accept a 8-32 screw. Install the bracket, p/n SKP2003 onto the aircraft using (2) 8-32 x .5 screws, p/n AN526-832R8 and (2) locknuts, p/n AN363-832 as shown in Photo 16.



Photo 15



Photo 16

Step 8. Open the aft hole in the cuff and the hole in the aircraft skin to .160 diameter as shown in Photo 17 and 18. **To ensure good mating of the cuff to the aircraft contour, install the cuff in the following sequence.** First secure the aft hole of the cuff to the aircraft using a 8-32 x 1/2 screw and lock nut as supplied. Snug the cuff to the skin of the aircraft as shown in Photo 19. Next moving from aft forward, work the cuff along the skin until the forward hole in the cuff aligns with the threaded hole in the bracket as shown in Photo 20. Carefully install the 8-32 x .1/4 screw and snug.



Photo 17



Photo 18



Photo 19



Photo 20

Step 9. Position the inner aft section of the cuff so that it is a minimum ¼ inch outboard of the gear door line drawn earlier as shown in Photo 21. While holding in position match drill the lower skin of the aircraft to the hole in the support bracket using a long #20 drill as shown in Photo 22. Then secure the support bracket to the aircraft skin using the 8-32 x ½ screw and lock nut supplied.



Photo 21



Photo 22

Step 10. Verify that the outlet of the pipe is free and clear of the cuff and is centered about the cuff. Minor adjustment of the dump pipe may be required and/or trimming of the cuff. If the pipe appears not to be centered about the lower edge of the cuff, the clamp at the turbo outlet may be loosened and the pipe readjusted as shown in Photo 23. The lower section and edge of the cuff should not be in the exhaust stream and must be trimmed if this condition occurs. See Photo 24.



Photo 23



Photo 24

Note: Verify that the clamp securing the over board dump pipe to the turbo charger outlet is retightened to manufacturer's specification if loosened for adjustment.

Step 11. Open the nose gear doors completely to verify no contact with the cuff. Re-close the doors. Enter a logbook entry in the airframe logbook stating the installation of the exhaust cuff as a minor alteration per the Installation Instructions provided.



CONTINUED MAINTENANCE INSPECTION CRITERIA

Maintenance Inspection Intervals: Each Annual Inspection

Inspection Criteria:

Component	Type of Discrepancy	Action
Aluminum Cuff	Cracks	Replace
Support Brackets	Cracks	Replace
