



American Aviation Corporation
318 Bishop Road Cleveland, Ohio 44143

SERVICE

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SERVICE KIT NO. SK-110

DATE: June 7, 1971
TITLE: Cabin Floor Honeycomb Repair
SERIALS AFFECTED: AA1-0001 thru AA1-0457 and AA1A-0001 thru AA1A-0123
WEIGHT AND BALANCE CHANGE: Negligible

Parts List

<u>Quantity</u>	<u>Part Number</u>	<u>Description</u>
1	A-1333-B	Adhesive Kit (B.F. Goodrich, Akron, Ohio)
2	830 L/S	Syringe, Plastipak (Becton Dickinson Co., Rutherford, New Jersey)
2	12 gauge	Needle (W.A. Butler Co., Columbus, Ohio)

Description of Repair

This kit covers repair of delamination of the honeycomb cabin floor caused by water ingestion around the PK screws that attach the kick pads, console, and carpet retainer strips to the floor. If the accumulated water freezes, minor delamination of the honeycomb bottom skin may result. Drilling holes through bottom skin per Service Letter No. 71-5, eliminates this condition and must be accomplished before repair is begun.

Repair Instructions

1. Remove the PK screws securing the console, kick pads and Ensulite carpet, and remove the console, kick pads and carpet from the aircraft. Unless previously accomplished, drill PK screw holes through bottom skin per Service Letter No. 71-5.
2. On delaminated areas requiring repair, remove oil and dirt from belly with Isopropyl alcohol. Cover bottom of hole with scotch tape and fill from top with Isopropyl alcohol. Remove tape and allow to drain. Repeat this procedure twice.

N O T E

If air pressure is used to blow out water and/or alcohol, use extreme care to prevent further delamination.

3. Place scotch tape over bottom of holes after delaminated areas are completely dry.

CAUTION

Do not use masking tape in place of scotch tape as adhesive will penetrate tape and prevent removal of tape and plates.

4. Fabricate plates from 1/4" aluminum or 1/8" steel stock as shown on figure 1 (2 for each hole being repaired). See figure 1A for plate dimensions and hole locations.

5. Place 3 strips of scotch tape over top of each PK screw hole (first strip centered over hole, 2 outer strips overlapping) as shown in figure 1B. Punch hole in scotch tape same size as screw hole.
6. Position the top plate with the center hole located over PK screw hole being repaired. Using the plate as a guide, drill two bolt holes (.250 dia.) perpendicular, through honeycomb and bottom skin. Apply a coating of paste wax to two 1/4"-28 bolts 1 1/2" long and insert bolts through top plate and honeycomb. Install bottom plate and tighten nuts finger tight.
7. Modify the 12 gauge needle supplied with kit as shown on figure 1C.
8. Mix the A-1333-B adhesive one-to-one and using the syringe and needle supplied in kit, inject the adhesive into the top PK screw holes. Use care not to over-pressurize this area.

N O T E

Do not mix more adhesive than can be used in 30 minutes. After 30 minutes, adhesive will start to cure.

9. Tighten plate bolts to 40 in.-lbs. torque.

C A U T I O N

Do not overtighten plate bolts as crushing of the honeycomb could result.

10. Allow a minimum of 24 hours for adhesive to cure. Do not use heat lamps to accelerate drying or adhesive cure.
11. After adhesive has cured, remove plates and place tape over bolt holes in bottom honeycomb skin. Fill bolt holes with A-1333-B adhesive and allow to cure for 24 hours.
12. After all adhesive has cured, redrill PK screw holes (#40 drill bit .098") perpendicular through adhesive and both honeycomb skins from bottom up. Provide lip on bottom honeycomb skin as instructed in Service Letter No. 71-5.

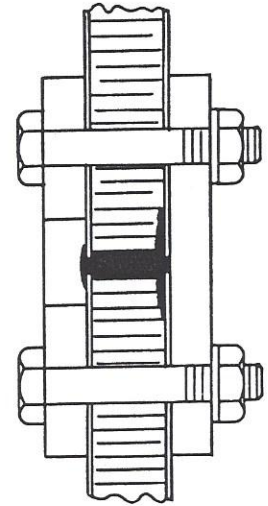
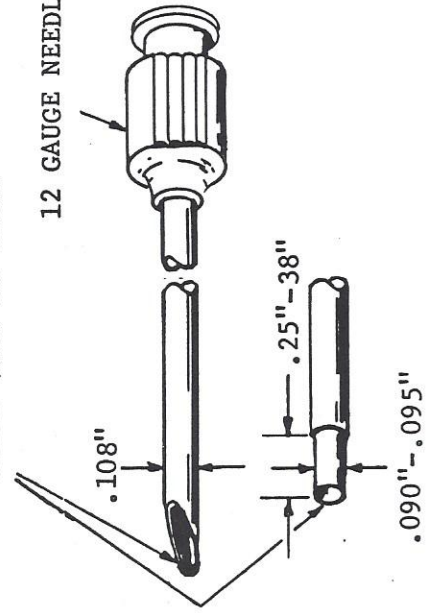
N O T E

PK screw holes must be located in original holes. If additional holes are drilled, they must be drilled through both face sheets to prevent future water accumulation.

13. Install and reglue Ensulite carpet. Install console and kick pads and carpet retainer strips.

AMERICAN AVIATION CORPORATION

12 GAUGE NEEDLE



CROSS SECTIONAL VIEW OF REPAIR WITH
PLATES IN POSITION

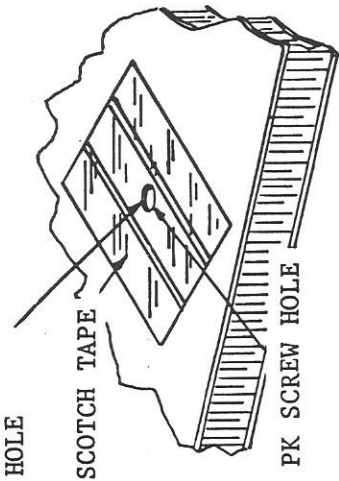


FIGURE 1. CABIN FLOOR HONEYCOMB REPAIR