

SERVICE BULLETIN NO. 27 WING TIP INSPECTION

Ocotber 12, 1987

SUBJECT: Visual inspection of wing tip area for evidence of cracks.

MODELS AFFECTED: All Ercoupe 415-C, 415-CD, 415-D, 415-E and

415-G aircraft.

All Forney F-1 and F-1A aircraft. All Alon A-2 AND A-2A Aircraft.

All Mooney M10 aircraft.

COMPLIANCE: Inspection required within the next ten hours of operation or at next periodic inspection which ever occurs first.

STATEMENT OF DIFFICULTY:

It has been reported that an Ercoupe with previous wing tip damage has been involved in a wing failure accident. This type of failure may have been caused by hidden damage that was not discovered or properly repaired at the time of occurance.

PROCEDURE:

- 1. Inspect aircraft log book for references to wing or wing tip damage repair. If any history of wing or wing tip damage is found proceed to item 3.
- 2. If no references are found pertaining to wing or wing tip damage in the logbook do not assume that there was no previous damage. It is very possible that some damage may have occured and been repaired but not logged in the 40+ year history of some of these aircraft. Visually inspect the leading edge and lower side of the wing and wing tip for indications of patched fabric or any irregularities in the wing surface that may indicate concealed damage. Pay particular attention to the outer 4 wing rib bays. If any indications of wing or wing tip damage are present proceed to item 3.

UNIVAIR AIRCRAFT CORPORATION

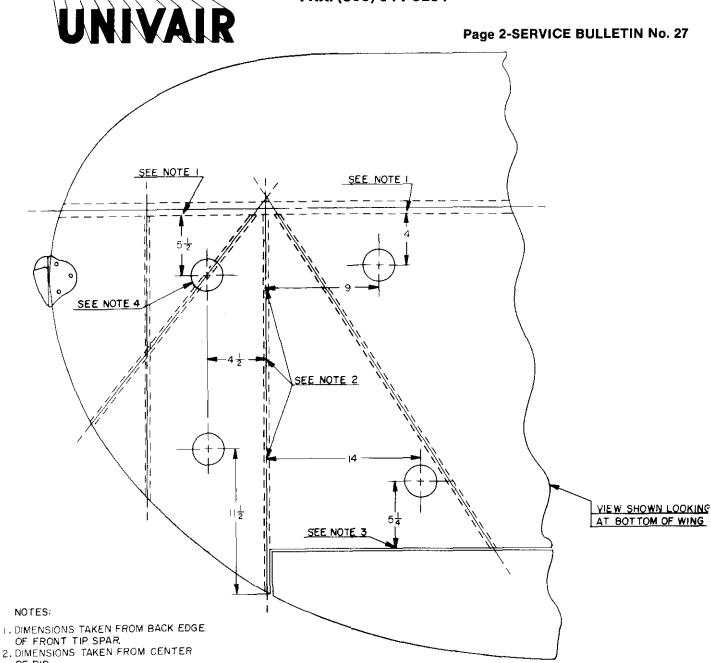
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TELEX: 317327



I. DIMENSIONS TAKEN FROM BACK EDGE

OF RIB.

- 3. DIMENSION TAKEN FROM BACK EDGE OF REAR SPAR.
- 4 INSPECTION HOLE SHOULD BE CENTERED
- OVER DIAGONAL RIB AS SHOWN. 5. RIGHT WING SHOWN, LEFT WING OPPOSITE.
- 6. USE RAND-O-BOND, SUPERSEAM, OR EQUIVALENT FABRIC CEMENT.
- 7. MODELS: ALL 415-C,415-CD,415-D,415-E,415-G, F-1, F-1A, A-2, A-2A, & MIO.

| | FABRIC CEMENT | SEE NOTE 6 | [AR] | | Į. |
|-------------------------------|---------------|--|------|----------|------|
| AN530-4-6 | SCREW | (METAL WING) | 8 | | |
| 85012-78 | RING | (FABRIC WING) | 8 | | |
| 12761-02 | COVER | | 8 | | |
| PART NO. | NAME | STOCK SIZE QTY MATE | | MATERIAL | SPEC |
| DRAWN BY: P. PEDRI DATE: 4-28 | | -87 SCALE: NONE A/C TYPE: ERCOU | | ROUPE | |
| LIMITS: ± NONE ± ± | | UNIVAIR AIRCRAFT CORPORATION 2500 Himalaya Road Aurora, Colorado 80011 | | | |
| FINISH: NONE | | | | | |
| PAINT: NONE | | SERVICE BULLITEN 27 | | | |
| MODELS: SEE NO | TE 7 | SHEET NO. DRAWING NO. SB27 | | | |

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3. If items 1 or 2 indicate any damage the following method may be used to check for hidden damage. Even if items 1 or 2 yield no indication of damage it is recommended that the following method be used to confirm no hidden damage exists.

VIVALR

- A. Locate the inspection openings in lower wing surface per the enclosed wing diagram. For metal covered wings the rib centerline can be determined by the row of rivets that secure the skin to the rib and the back edge of the tip spar is even with the back edge of the skin section. CAUTION: If the hole locations specified will cut into any skin stiffeners on metal covered wings alter the hole location as required to clear the obstruction
- B. On metal covered wings cut 8 each $3\frac{1}{2}$ inch diameter inpection holes and deburr openings. On fabric covered wings remove finish to bare fabric at each opening location and attach reinforcing ring P/N 007-85012-78 (or equivalent) with Rand-O-Bond or Super Seam fabric cement (or equivalent). Apply finish as required to touch up area surrounding ring and 8 new cover plates. Cut out center opening of ring carefully.
- C. Using the new openings cut in step B for access, inspect all wing ribs in the tip area for security of attachment and any possible cracking. Inspect for rib buckling or any other compression damage that may result from leading edge impact. Repair or replace any damaged parts prior to further flight. Inspect the tip spar splice joint per Ercoupe Service Memorandums 58 and 58A to confirm that 5/32 diameter universal head rivets are installed and that they are not loose.
- D. After inspection is complete install 8 new cover plates P/N 007-12761-02 (or equivalent) over openings in lower wing. On metal covered wings secure each cover plate at the leading edge with one AN530-4-6 sheet metal screw (or equivalent).
- E. Make log book entry stating that Ercoupe Service Bulletin No. 27 has been complied with.