

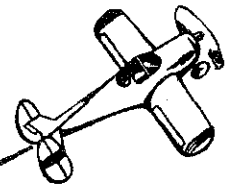


Ercoupe
BULLETIN

ERCOUPE
SERVICE
BULLETIN

No. **29**
Revision C

SUBJECT: Mandatory Outer Wing
Panel Inspection



July 8, 1999

MANDATORY SERVICE BULLETIN

SERVICE BULLETIN NO. 29, REVISION C
OUTER WING PANEL INSPECTION

DATE: July 8, 1999

SUBJECT: Visual inspection of outer wing panel structure for evidence of corrosion.

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 one hundred hours of operation or at the next periodic inspection, whichever occurs first.

STATEMENT OF DIFFICULTY:

There have been field reports of severe corrosion in the outer wing panel structure of several aircraft. The most effective means of preventing corrosion damage is early identification and correction. However, the original design configuration does not provide adequate means for routine visual examination of the wing panels during periodic inspections. Consequently, this Service Bulletin provides for the installation of strategically placed inspection openings to allow for complete visual access to the wing panel structure, and calls for an inspection to establish the current condition of the structure. The inspection openings will then allow routine inspections to be accomplished as required under FAR Part 43, Appendix D, (f).

Revision C of this Service Bulletin provides some clarifications to Revision B. If Service Bulletin No. 29 Rev. B has been complied with, then only the continued inspection procedures of Step 7 below need to be accomplished.

PROCEDURE:

1. The following optional procedure is intended only as a preliminary inspection to determine if a major corrosion problem exists, prior to installing the permanent inspection openings in the wing panels.

If equipment is available, cut borescope hole in center of inspection opening locations as shown on diagram SB-29, Rev. B. Inspect wing interior and make preliminary assessment of wing condition. FAA Advisory Circular AC 43-4A, "Corrosion Control for Aircraft", dated 7/25/91 or later, should be used to identify and treat corroded areas. Service Memos 45, 58, 58A, 64 and Service Bulletin No. 27 concern outer wing panel structure and should be reviewed at this time. If preliminary examination reveals conditions that are not repairable through an inspection opening, remove wing covering as required and repair or replace unairworthy parts prior to further operation. Replace covering. Install inspection openings and covers per Steps 2, 3, and 5. If borescope equipment is not available, proceed to Step 2.

2. Inspection opening location -

Locate inspection openings on the lower wing surface per the enclosed diagram, SB-29, Rev. B. Aircraft with factory covered metal skinned wings may already have existing inspection openings. SB-29, Rev. B, includes these openings.

CAUTION: If the opening locations specified by the diagram interfere with any skin stiffeners on metal skinned wings, alter the opening location to clear the stiffener.

3. Cutting procedure -

Metal skinned wings - Cut 3.50 inch diameter inspection openings at the locations of No. 2 above and deburr.

Fabric covered wings - Remove finish to bare fabric at the locations of No. 2 above. Attach reinforcing ring (P/N 483-15) with Rand-O-Bond, Super Seam or cement approved for use with covering process STC. If the wing is covered with synthetic fabric, it is recommended that a cover patch be applied over the inspection ring to prevent the ring peeling away from the fabric surface. Apply finish as required to touch-up area surrounding reinforcing ring. Carefully cut out center opening of ring.

NOTE: The four outboard inspection openings in each wing may have already been installed per Service Bulletin No. 27.

4. Inspection procedure -

Using the openings made in Step 3 above, inspect the wing panel structure for corrosion and unrepaired damage. FAA Advisory Circular AC 43-4A,

"Corrosion Control for Aircraft", dated 7/25/91 or later, should be used to identify and treat corroded areas. Service Memos 45, 58, 58A, 64 and Service Bulletin No. 27 concern outer wing panel structure and should be reviewed at this time.

Service Memo 45 regarding leading edge skin dents applies to Ercoupes Serial Nos. 1 to 112. Use heavier gage sheet metal to replace dented leading edge skins on these aircraft.

Service Memo 58 stresses the importance of maintaining the fabric on fabric covered wings. It also details the inspection and repair of the wing tip splice on Ercoupes Serial Number 4893 and earlier. If the wing tip splice is held with countersink rivets they should be replaced with larger diameter universal head rivets in accordance with Service Memo 58.

Service Memo 58A reiterates the importance of compliance with Service Memo 58. Service Memo 58A suggests the replacement of countersink rivets in the wing tip splice with universal head rivets when fabric is being replaced whether the rivets are loose or not. *Univair Aircraft Corporation strongly recommends the replacement of countersink rivets in the wing tip splice with universal head rivets in accordance with Service Memo 58 as soon as practical.*

Service Memo 64 announces the availability of repair kit S.A 24 to simplify repair of damage to the inboard end of the outer wing panel rear spar, providing the damage does not extend outboard of a point 15 inches from the inner rib. If the rear spar attach fitting or the rear spar around the fitting is corroded, kit S.A. 24 may be installed to replace the corroded fitting and the inboard 15 inches of the rear spar.

Service Bulletin No. 27 details procedures for inspection of suspected wing tip damage.

Repair or replace any parts considered unairworthy prior to further operation.

5. Cover plate installation -

After inspection is complete, install cover plates (P/N 483-10) in each opening. On metal skinned wings, secure each cover plate at the leading edge with one 4 X 3/8 TRA sheet metal screw.

6. Required documentation -

Make log book entry stating compliance with Service Bulletin No. 29C. Weight and balance change is considered negligible.

7. Continued inspections -

At each 100 hour and annual inspection, remove the cover plates installed per Step 3 and inspect outer wing panel for corrosion or damage per Step 4 as required by FAR Part 43, Appendix D (f). Repair or replace corroded or damaged parts as required.

