

SERVICE BULLETIN 83

SUBJECT: COSMETIC PAINT CRACKS AT BASE OF WINDSHIELD

APPLICATION: All Glasair II and III aircraft.

DESCRIPTION: We have had a number of reports of cracks occurring in the paint around the windshield and rear windows on Glasair IIs and IIIs with at least 50 hours of flight time. The cracks occur along the gap between the plexiglass and the molded fiberglass windshield frame. This gap was filled during windshield installation with either a cabosil mixture, a Q-cell mixture, or possibly body putty. Although we suspect that these paint cracks are only cosmetic in nature, it is the responsibility of each Glasair owner to determine whether the crack is merely cosmetic or affects the integrity of the plexiglass bond.

SOLUTION: There are several courses of action to prevent cracks:

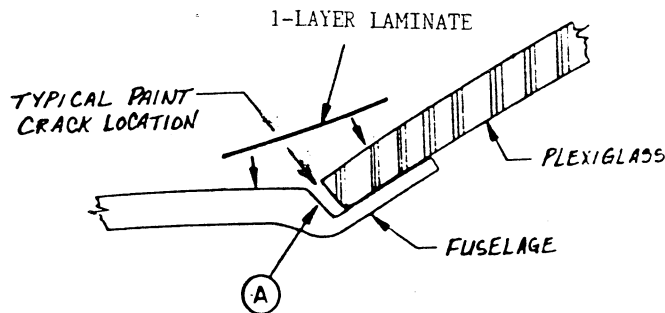


FIGURE (1)

1. To make sure you achieve a proper bond of the windshield into the fuselage, prepare the fuselage by sanding the paint/primer back to the fiberglass laminates underneath. Also be sure to remove any primer from the surface marked by A in FIGURE (1). Thoroughly roughen the bonding area of the plexiglass by sanding before bonding.
2. In the area along the forward lower edge of the windshield, reduce to a minimum the size of the Q-cell fillet used to fair the windshield into the upper surface of the fuselage nose. A thick layer of filler is more prone to cracking.

**STODDARD-HAMILTON**  
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3. Apply a narrow, single layer laminate over the gap between the windshield and the windshield frame, as shown in FIGURE (1). Lap the laminate onto the windshield by about 1/4" and sand it smooth while tapering the edge. Fill small imperfections with a lightweight body filler, and paint the laminate to hide it as well as the inside flange to which the plexiglass is bonded.

4. Use the procedures described in the Instruction Manuals to install the rear windows. Builders who have fabricated flanges to bond the windows in from the outside are more likely to experience cracking around the windows.



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