

Aero service letter No. SL-AG-61

Commander

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Service Letter No. SL-AG-61
July 13, 1970

AILERON BAY SKINS

EFFECTIVITY: Aircraft Model S-2C, S-2D, & S-2R; Serial Number 1190C & Subs., All S-2D & S-2R.

APPROVAL: FAA Approved

There have been several reports of the upper and lower aileron bay skins cracking out.

New heavier gauge bay skins and new support ribs are available to remedy this situation.

An inspection should be made to determine if either or both the skins are in need of replacement. If replacement is needed, follow instructions below:

INSTALLATION INSTRUCTIONS:

1. Remove aileron from aircraft.
 - A. It would be advisable at this point to cut a thin metal template to fit the contour of the top wing skins to assure proper vertical location of the new support ribs. If the support ribs are located too low, the aileron will foul on the upper bay skin.
2. Remove the cracked skin or skins by drilling out the rivets on top and bottom of rear spar. If the upper skin is okay, drill out only the rivets that hold the upper and lower bay skins together at the trailing edge. Drill off two angles attaching the lower bay skin to the ribs.
3. If upper skin needs replacing, drill new skin to match removed skin and rivet to trailing edge skin and main spar as original.
4. Drill out rivets securing main ribs to rear spar at wing stations 149 $\frac{3}{4}$, 173 $\frac{1}{2}$, 185 $\frac{3}{8}$ and 209 $\frac{1}{8}$. Extreme caution should be used when drilling out rivets to prevent elongated or oversize holes.

5. Locate the 20360-1 left hand and the 20360-2 right hand ribs in line with main ribs and up on rear spar to assure correct line of upper bay skin. (Use the template mentioned in the previous portion of this letter to locate the ribs vertically.)
6. Drill support ribs to match rear spar and main ribs and rivet in place. The most inboard rib at wing stations 149 3/4 will have to be installed with Huck rivets.
7. Slide the lower flange of the new aileron bay skin between the rear spar flange and the lower wing skin until it contacts the rib. One or both ends may have to be trimmed slightly to assure proper fit and alignments.
8. Drill lower flange of the bay skin to match lower wing skin and spar. Rivet after drilling.
9. Mark rib line on top skin and drill #30 diameter holes, two in each rib, through upper bay skin and rib. Leave 1/4 inch edge distance from each end of rib flange as shown on attached drawing.
10. Drill #30 diameter holes, four in each rib, on aft flange to match bay skin. Huck skin to rib.
11. Drill upper flange of bay skin to match upper skin. Rivet together. Be sure skins are in a straight line before drilling and riveting.
12. Install new angle at each end of skin to secure to ribs.
13. Seal around all joints with PRC.
14. Re-finish skins as required.
15. Re-install aileron.
16. Re-rig ailerons per instructions in Owner's Manual.

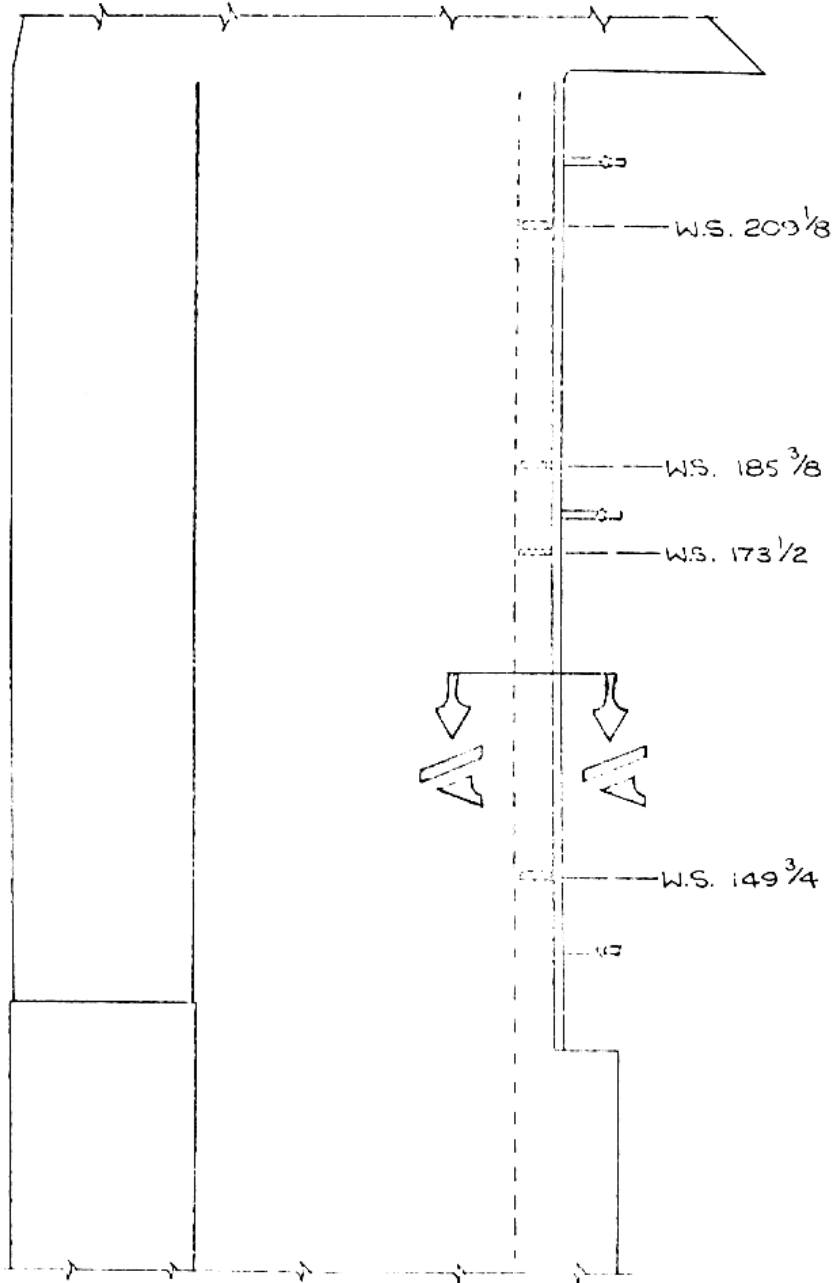
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<u>PART NUMBER</u>	<u># REQUIRED</u>	<u>DESCRIPTION</u>
20235-1	Optional if required	Aileron bay skin – upper
20234-1	2	Aileron bay skin – lower
20360-1	4	Rib – Aileron Bay – Right Hand
5-2168-1	4	Angle

Drawing – Service Letter #61

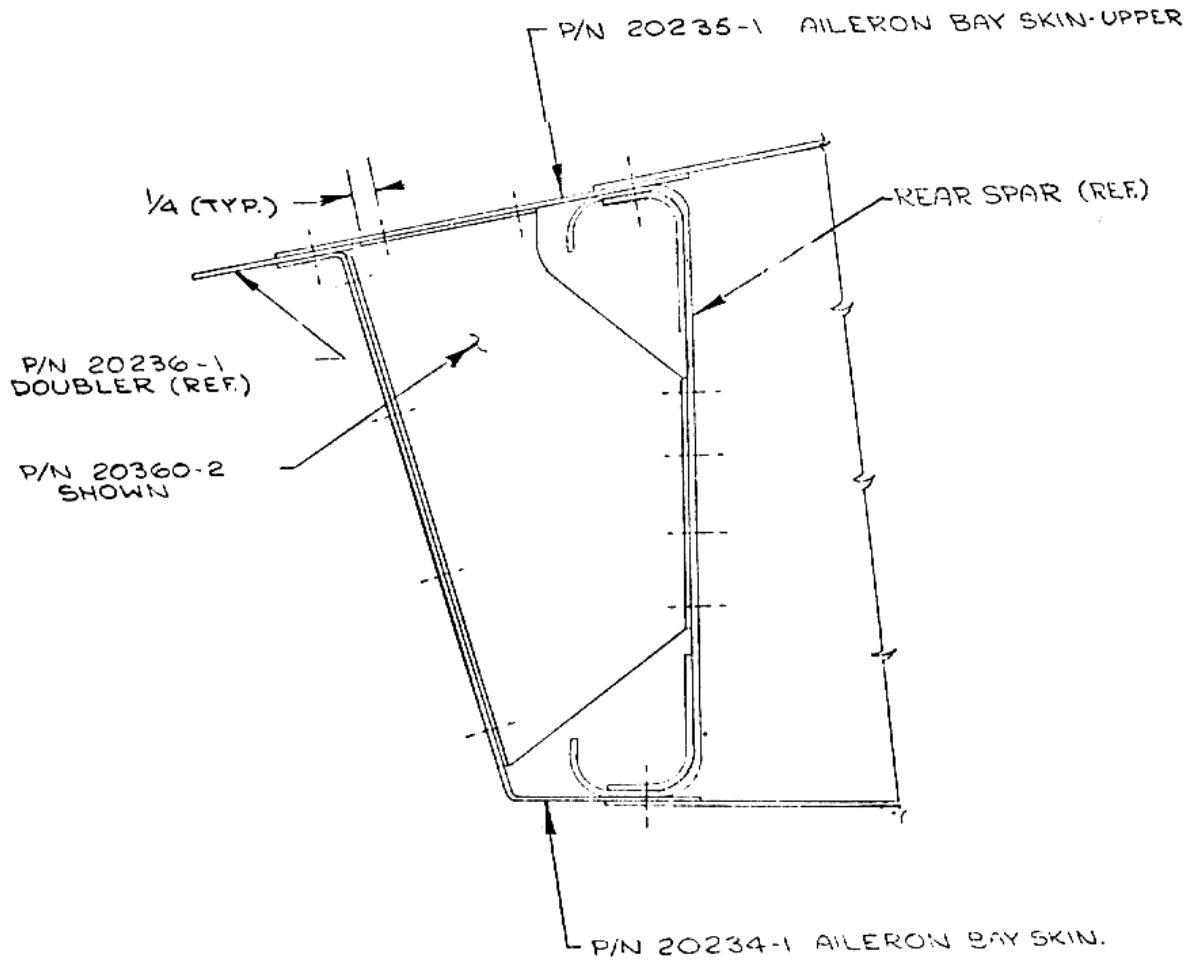
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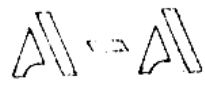
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SECTION 
SCALE- 1/2