

PITTS AVIATION ENTERPRISES, Inc.

P.O. BOX 548 • HOMESTEAD, FLORIDA 33030

SERVICE LETTER NO. 4

PITTS MODEL S-2A

SUBJECT: Upper aileron hinge bracket to aileron spar area; cracks in spar and/or doubler channel.

APPLICABILITY: This service letter applies to Pitts Model S-2A airplanes Serial Number 2090 and lower.

ACCOMPLISH THE FOLLOWING:

1. Remove two hinge bracket bolts and remove bracket assembly from spar.
2. Cut two 1 inch diameter holes in lower leading edge skin, immediately inboard and outboard of hinge area so as to make accessible the inboard and outboard rows of three rivets.
3. Carefully drill out 16 AN470AD4 rivets common to spar and doubler channel webs, and 6 AN470AD3 rivets common to spar and doubler channel flanges.
4. Remove from spar the forward flat doubler and doubler channel.
5. Inspect the spar web for cracks. If cracks exist, stop-drill ends of cracks using No. 40 drill.
6. Using the old doubler channel for a pattern, fabricate (-1) repair doubler channel into duplicate of old doubler channel. Material for (-1) repair doubler channel is .035 4130 'N' steel sheet. Then discard old doubler channel.
7. Using 2024T-3 material, .090 x 1 3/4 x 1 13/16 fabricate (-2) aft reinforcement plate. Round off the upper and lower forward edges of the (-2) plate to nest snugly in the bend radius of the (-1) repair doubler channel flanges. Use existing forward reinforcement plate to establish hole pattern in (-2) plate. (6 rivets and 2 bolts)
8. Zinc chromate all bare metal surfaces.
9. Buck 16 AN470AD4 rivets thru aileron spar, (-1) repair doubler channel, the forward flat doubler, and the (-2) aft reinforcement plate. Buck 6 AN470AD3 rivets common to aileron spar flanges and (-1) repair channel flanges.
10. Reinstall hinge bracket assembly. Note that the added material thickness may require use of AN3 bolts 1/8 inch longer than those originally installed, that is, AN3-5A instead of AN3-4A.
11. Install fabric patches over 1 inch diameter holes cut in step 2 above; per FAA AC 43.13.1A or approved equivalent.

This service letter is FAA DER approved.

E. F. DEARING

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