

SERVICE LETTER 3

SUBJECT: Landing gear scissors which use pressed-in bushings.

APPLICATION: Glasair I RG, G-II RG with machined scissors using pressed-in bushings at their pivot points, all G-II-S RG, Super II-S RG, G-III aircraft.

DISCUSSION: Two Service Difficulty items have been reported from aircraft with the pressed-in scissor bushings.

A. Loss of bushings:

The bushings rely on interference (press) fit to hold them in place in the scissor. We have had several builder reports that during preflight inspections a bushing had been found to be missing. If the bushing loosens during service there is no mechanical retention to hold it in the scissor.

SOLUTION: If a bushing is found to be missing, replacement bushings (NAS 75-5-020 and NAS 75-5-015) are available from Stoddard-Hamilton. The replacement bushing should be reinstalled using Loctite and staking the aluminum around it.

NOTE: The scissors area should be inspected for missing or loose bushings as a part of a normal preflight inspection.

A second more comprehensive fix is also available. Recent production RG landing gear have been assembled using a bolt and nut in place of the pivot pin. The bolt and castellated nut (cotter pinned), will prevent any backing out of the scissor bushings. The bolt used is a NAS 1105-32D with a AN320-5 nut, and MS 24665-153 cotter pin. This fastener combination is also available from the Stoddard Hamilton.

NOTE: A pivot pin with a welded on squat switch mounting pad cannot be replaced by an NAS1105-32D bolt.

B. Binding of scissor bushings and pivot pin, causing clevis pin to shear.

The second Service Difficulty item is also scissor bushing related. During preflight inspection of our company demonstrator aircraft, it was noted that the clevis pin locking the pivot pin to the landing gear trunnion was missing. When replacement was attempted, the clevis pin hole did not align with the hole in the pivot pin. The pivot pin was also found to be tightly bound in the scissors. When the pivot pin was driven out a lack of lubrication was noted. When cleaned and lubricated all parts went back together easily.



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**SOLUTION:** Periodically lubricate the scissor pivot pin joints using a penetrating lubricant.

**NOTE:** The scissor area should be inspected for missing clevis pins as a part of a normal preflight inspection.

A second alternate fix would be the use of the bolt and nut system described earlier.



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