

SERVICE BULLETIN 6

SUBJECT 1: RG Gear Strut Leaks

APPLICATION: Subject 1 applies to Glasair RG landing gear sets with serial numbers 071 through 210. (Serial numbers are stamped on the gear fork, immediately below the chrome oleo cylinder.)

DESCRIPTION: Some of the builders who received RG gear struts from our second production run have reported leaks in their oleo struts. Although a small amount of weeping is to be expected, larger amounts should not occur.

After a careful and lengthy investigation into the cause of these leaks, we have determined that the surface of a small O-ring groove was occasionally finished in such a manner that over time a small amount of hydraulic fluid can seep by the O-ring.

SOLUTION: Although the apparent solution to this problem is to polish the O-ring groove, our tests have shown that this method is not foolproof. After consulting with numerous seal manufacturers, we have determined the best solution to be the installation of a flat reinforced rubber washer between the gland nut and cylinder bearing.

If you would like Stoddard-Hamilton to repair your leaking gear struts, return them to us, shipping prepaid, and we will correct the leak. Be sure that each strut is individually wrapped with foam or other protective cushioning.

If you do not wish to actually remove your struts from your Glasair (or would simply like to repair them yourself), you will need two special pin spanner wrenches to remove the gland nuts and the oleo cylinder nuts. Stoddard-Hamilton will loan these tools for a deposit of \$60.00. If you wish, you can purchase these tools for \$58.50, and have them available for future gear maintenance. We will consider all loaned tools kept for more than 30 days to have been purchased.

As the Nylatron cylinder bearings of the struts are cooled with liquid nitrogen prior to assembly, builders may find that when these bearings are removed from the strut cylinder they cannot be reinserted without the use of liquid nitrogen. To remedy this situation, Stoddard-Hamilton will provide cylinder bearings made from Delrin (a more expensive, but equally appropriate material), which does not need to be cooled prior to assembly. We will provide the Delrin bearings free of charge, in exchange for your present Nylatron bearings. A deposit of \$15.00 per bearing will be required, which will be refunded upon return of your Nylatron bearings in acceptable condition. We will also furnish free of charge the flat rubber washers and instructions necessary to repair your gear struts.

WARNING: Do not attempt to disassemble your oleo struts without completely reading the service instructions provided with the repair kit. Injury could result from the pressurized system.


STODDARD-HAMILTON
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SUBJECT 2: Landing Gear Oleo Strut Internal Snubber Rings.

APPLICATION: This bulletin applies to Glasair RG aircraft with landing gear sets with serial numbers 001 through 210. (Serial numbers are stamped on the forks, immediately below the chrome oleo cylinders.)

DESCRIPTION: The oleo struts on the Glasair RG are equipped with internal snubber rings that act as a cushion when the struts reach the stops at their full extension. We have had a report of premature deterioration of the snubber rings on one strut in service. This can allow the strut to extend an additional 1/4" in length. This extra length could cause a gear strut to become stuck in the gear well in the up position if there is not adequate clearance for the extra 1/4" length. In addition, at least 1/8" should be allowed for expansion of the tire due to temperature changes. A total minimum of 3/8" clearance is needed, therefore, to ensure that the gear will not bind in the up position if its extended length increases due to snubber ring deterioration.

WARNING: Do not fly your aircraft if there is not adequate room in the gear wells for an extra 3/8" in main gear strut length from its original length. Landing gear length when shipped from the factory is 6" (+ 1/16") from the brass gland nut at the base of the upper strut trunnion assembly to the horizontal plane level with the top of the fork attach screws at the bottom of the chrome oleo cylinder.

SOLUTION: If your landing gear strut is longer than it should be, or if you do not have adequate room for possible lengthening, the existing snubber rings should be replaced with rings made from a more suitable material. These improved rings are available from Stoddard-Hamilton Aircraft at no charge. If your gear struts have been leaking (see Subject 1 of this Service Bulletin), the snubber rings can be replaced at the same time that the new oleo strut seals are installed.

Stoddard-Hamilton will replace the snubber rings on landing gear from the second production run (landing gear serial numbers 071 through 210) at no charge if you return your gear to us, shipping prepaid. We will modify gear from the first production run (landing gear serial numbers 001 through 070) for \$18.00 per strut. If you return the gear to us, be sure that each strut is individually wrapped with foam or other protective cushioning.

Again, if you do not wish to actually remove your struts from your Glasair (or would simply like to modify them yourself), you will need two special pin spanner wrenches to remove the gland nuts and the oleo cylinder nuts. As described in Subject 1, above, these tools can be borrowed or purchased from Stoddard-Hamilton Aircraft.

If you plan to service your own gear struts, please call Stoddard-Hamilton's shipping department at (206) 435-8535 to arrange for shipment of tools, bearings, rubber washers, snubber rings, and modification instructions. Visa or MasterCard are accepted for deposits and purchases.

WARNING: This is a MANDATORY modification. Your landing gear struts have the possibility of jamming if the snubber rings should prematurely deteriorate.


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