

Service Bulletin 54 Repair Kit Instructions

Subject: Kit: 981-05000-01 Sportsman Wing Strut Relief Spacer
Installation Instructions

Reference: Service Bulletin 54

Application: Sportsman customers who have relieved wing struts beyond the limit specified in Service Bulletin 54 will need a spacer to provide compression load column support for the lift strut in the area relieved for wing fold in excess of the specifications set forth in the manual and/or Service Bulletin 54.

Upon request, Glasair Aviation will supply a rental kit. A \$100 deposit is required. If the rental kit is returned to Glasair Aviation within 14 days, the deposit will be refunded in full. If the rental kit is returned within 30 days, the builder will be charged a \$50 rental fee. If the rental kit is not returned within 30 days, a \$50 rental fee will be charged and the deposit will be forfeited (for a total cost of \$150). Please contact Customer Service at 360-435-8533 x221 or parts@glasairaviation.com to obtain a repair kit (981-05000-01).

Kit: 981-05010-01 Rental Wing Strut Drill Fixture**Contents:**

- (2) (Part #: 981-05020-01) ¼” Drill guides
- (1) (Part #: 981-05020-02) Wing strut drill jig
- (1) (Part #: 981-05020-03) .250” Diameter tapered pin
- (1) (Part #: 981-05020-04) Machine stop countersink with .250” piloted cutter
- (2) (Part #: 981-05020-07) .250” Diameter step drill

Kit: 981-05010-02 Wing Strut Spacer Materials**Contents:**


- (2) (Part #: 981-05020-05) Threaded spacers
- (2) (Part #: 981-05020-06) Wing strut trim end
- (2) (Part #: AN380-3-4) Cotter pins
- (4) (Part #: AN 507-428R10) Machine screws

Step 1: Sand, clean and primer the two aluminum spacers provided. Set aside to dry.

Step 2: The drill fixture will locate the spacer approximately 5-½” up from the lower end of the strut. Place the wing strut drill fixture over the strut and butt it to the head of the outboard, lower bolt. (See photo below.)

Step 3: Lightly clamp the drill fixture together at the trailing edge so that it won't easily move.

Step 4: Install the upper drill bushing and drill a .250 diameter hole with the step drill provided. Insert the tapered pin in the first hole to prevent any shift in the fixture while drilling the second hole. Then drill the lower hole.

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Step 5: Remove the drill fixture and use the micro-stop countersink cutter to countersink the holes. (A scrap piece of strut has been provided for you to test the countersink depth before doing so on your struts!)

Step 6: *The wing strut will need to be loosened and the lower fitting removed to install the spacer. This procedure will be much easier and safer if you have the assistance of one or two others. If on taildrager gear, prop the tail first to be able to roughly achieve a level waterline. Chalk the wheels to prevent the plane from moving.*


Prop up the outboard end of the wing with a stepladder with padding on top. Be sure to support the wing weight at a rib station. With the wing supported, remove the AN6-24A inboard, upper wing strut bolt. (See fig. 64 below) This will allow the lift strut to pivot slightly on the outermost bolt to facilitate removal of the lower fitting. (Sometimes the upper, outboard bolt is easier to remove. It is ok to remove the outboard bolt as long as only one of the upper bolts is removed.)

Step 7: Remove the nuts from both $\frac{3}{8}$ " diameter AN6-24A lower wing strut bolts. Have the person(s) assisting you lift at the wing tip until the load is neutral at the $\frac{1}{2}$ " dia. AN8-22 pivot bolt and tap it out with a soft hammer. Once the pivot bolt is removed, slide the lift strut aft to remove it from the cage pivot lug. Gently set the wing back on the support.

Step 8: Remove the lower fitting and slide the spacer into position. With a small drop of Loctite® on the threads, install the AN507-428R10 machine screws.

Step 9: Install and secure all components back in the reverse order they were removed. (Place a small amount of wheel bearing grease on the AN8-22 pivot bolt). New cotter pins have been supplied for securing the castle nuts to the pivot bolts.



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SECTION IX: SYSTEMS INSTALLATION

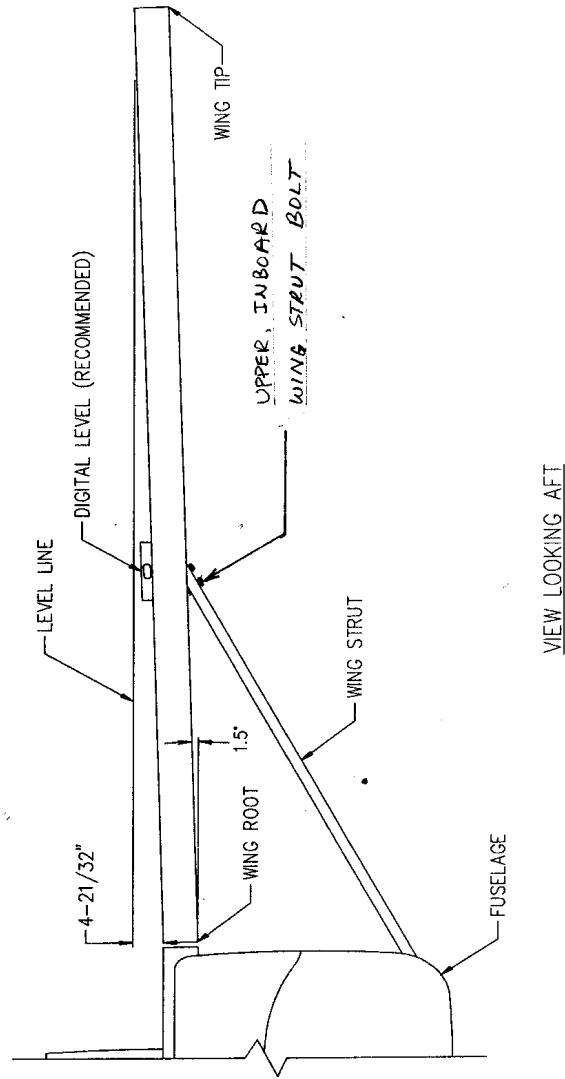


Figure 64: Setting the Wing Dihedral