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JUNE 1 1993

SERVICE BULLETIN #30

SUBJECT: RETRACTABLE FLOAT MAIN GEAR MECHANISM - MANDATORY

TO: ALL KITFOX AIRCRAFT OWNERS WHO OPERATE RETRACTABLE FLOATS, 1100 series, Serial No.s 01L0492 through 44L0493.

FROM: SKYSTAR AIRCRAFT CORPORATION

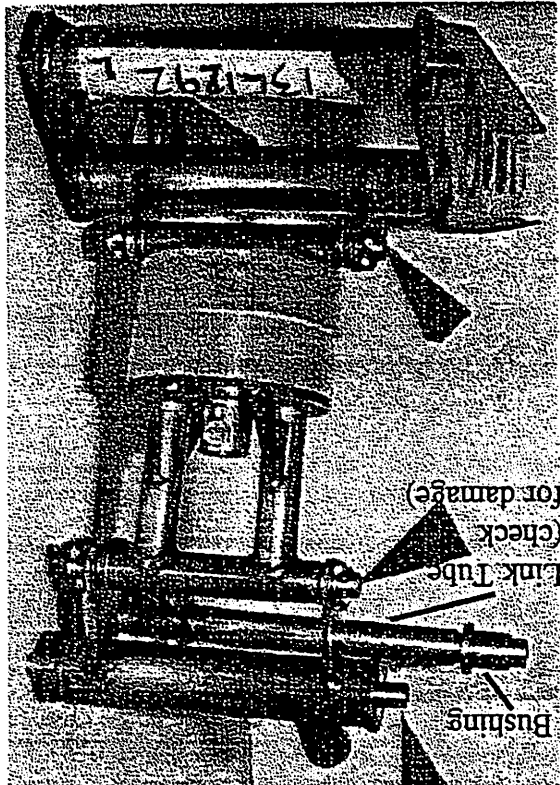
It has come to our attention that it is possible to damage the retraction mechanism during the rigging of the floats. The problem has only affected the left float mechanism at this time. Two situations have occurred during the initial rigging of the floats and to date there have been no failures arising from flight operations with the floats. This situation arises when the left float gear retraction cables are set to 30 pounds tension and then the right float right float gear retraction cables are adjusted next in sequence to 30 pounds tension. If the gear retract cables are rigged such that the left float gear reaches it's down and locked position prior to the right float gear reaching it's down and locked position, damage to the left float gear retraction mechanism is likely. The damage can occur when the left float gear is down and locked, but additional movement of the johnson bar is necessary to move the right float gear to the down and locked position. This additional movement of the johnson bar will indeed move the right gear to it's down and locked position, but it will also pull the cables attached to the left gear. The left gear cannot be moved any farther because it is already down and locked. When this happens, the link tube (part of the retraction mechanism for the left float gear) is likely to be overstressed. Subsequent operation of the landing gear retract mechanism will no longer move the left gear fully to it's down and locked position.

#### RECOMMENDATION

All amphibious float owner/operators must check their gear retraction cable rigging per the attached instructions to make certain that the cables are rigged properly, and that the right and left gears reach their down and locked positions simultaneously. Both the right and the left link tubes (see attached drawing) must be inspected for evidence of bending or twisting. In addition, the main gear over center travel must be checked per the attached drawing to make certain that sufficient over center travel exists. The gear retraction cable rigging must be checked at 100hr intervals thereafter to insure that the cables have not gone out of rig.

1. Support the floats on blocks.
2. Remove the main wheel assembly through the center opening in the float.
3. Note: place a straight edge so it runs from the center of the bottom shock pin holder and the center of the yoke tube as shown in drawing. Measure the distance from the straight edge to the center of the top shock pin. If necessary, the stop may be removed and shortened by grinding to gain sufficient over center movement. Refer to Fig. "A" to determine where to grind. Ensure over center is 1/8" to 3/16". See Fig. 1.
4. If it is necessary to replace the left float link tube, then loosen the retraction cables. It is not necessary to remove cables or their pulleys from their mounts. Remove the two AN3C10A bolts which hold the #5060 link tube. One bolt holds the pulley mount #5041 and the other attaches the pin link tube #5042. Remove the parts from each end of the link tube and save the o-rings and washers.
5. Remove the bolt holding the link tube to the link arm and remove the link tube.
6. Re-assemble in the reverse order of the above. Ensure that the o-rings and retaining washers are greased and in the original position.
7. See the attached rigging instructions for model 1100 AM Floats.
8. Check the aircraft per the float installation instructions to be certain that the float cable tension which holds the gear against the stop is at 30 +/- 2 pounds. It is very important to gradually rig the floats at the same time and to make certain that the left and right gears operate in unison. Do not force the retract handle in the down position without monitoring the cable tension. The handle and lever have enough leverage to twist the linkages.
9. If the link tube is found to be bent or twisted, then a new reinforced tube is being made available on an exchange basis for only the shipping and handling costs of \$10.00. An upgraded left gear rotation mount is also available which the factory has installed on all floats beginning with serial no. 1102-45L0693

# FRONT VIEW OF MAIN LANDING GEAR



Dark arrows show straight edge points

