



SERVICE LETTER NUMBER 136			
TITLE: 3000/3450 NOSE BOX - FINGER TAB INSTALLATION			
BY: J. Sortor	AIRCRAFT MAKE/MODEL(S):	FLOAT MODEL(S):	NOTE(S):
APP: D.Garrett	Cessna: 180, 182, 185,206	3000 Amphibian	OPTIONAL COMPLIANCE
DATE: 7/8/2013	Maule: M-6-235; M-7-235; M-7-235B;	3450 Amphibian	S/L P/N 1005835
REV: B	M-7-235C; M-7-260; M-7-260C; M-7-420A; M-7-4Z0AC; MT-7-235; MT-7-260; MX-7-235		ECO--23245

FAA APPROVAL HAS BEEN OBTAINED FOR TECHNICAL DATA IN THIS PUBLICATION THAT AFFECTS STC OR TSO DESIGN COMPLIANCE

EFFECTIVITY:

This service letter applies to all Wipline model 3000 S/N 30231 and prior and 3450 S/N 34272 and prior amphibious floats, as installed on the following aircraft

Cessna 180/185 on Wipline 3000 amphibian floats per STC SA01320CH

Cessna 182 on Wipline 3000 amphibian floats per STC SA001156CH

Maule series on Wipline 3000 amphibian floats per STC SA01412CH

Cessna 206 on Wipline 3450 amphibian floats per STC SA01185CH

SERVICE LETTER P/N: 1005835

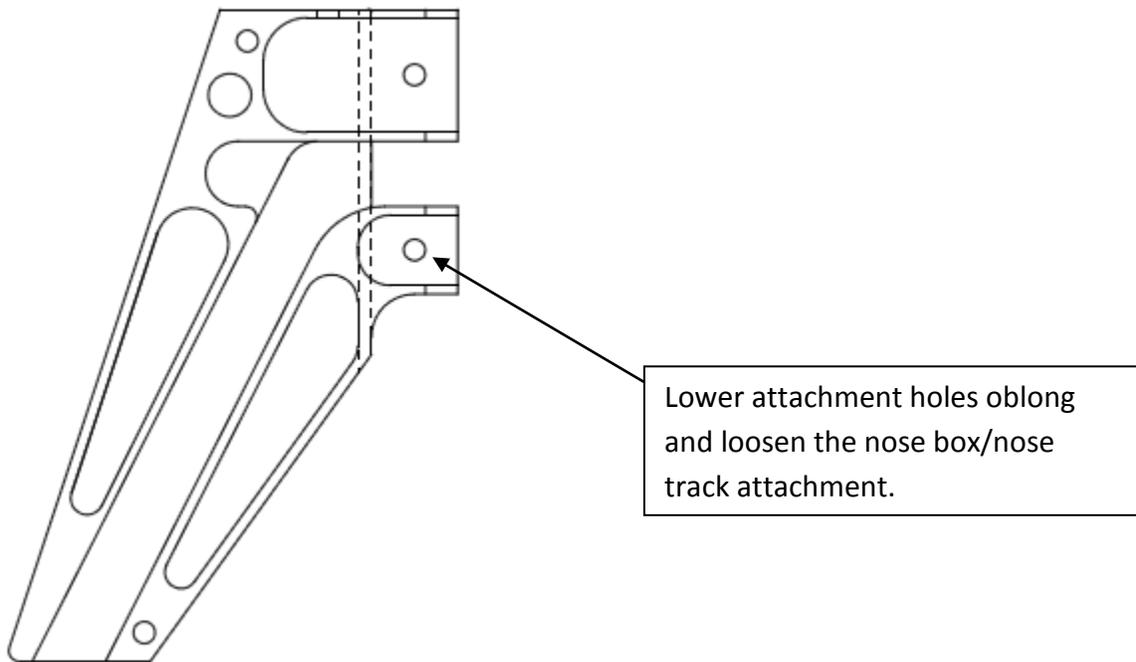
COMPLIANCE:

Service letter compliance is optional.

BACKGROUND:

The lower hole in nose track component (21A07349-003 & -004) and or nose box (30A07323-002) can oblong causing the nose track/nose box joint to become loose. This loosening of the nose track to the nose box causes the nose bulkhead to flex; in some cases this causes the nose bulkhead to develop cracks due to excessive deflection over time.

It is thought that this problem is exacerbated by grass field operations that would cause the nose gear to work back and forth repeatedly in any takeoff or landing. It is also thought that the sudden jolt of aircraft towing may play a role in deforming the lower hole.



WARRANTY INFORMATION:

This service letter includes warranty on repair parts, but does not include warranty on existing parts.

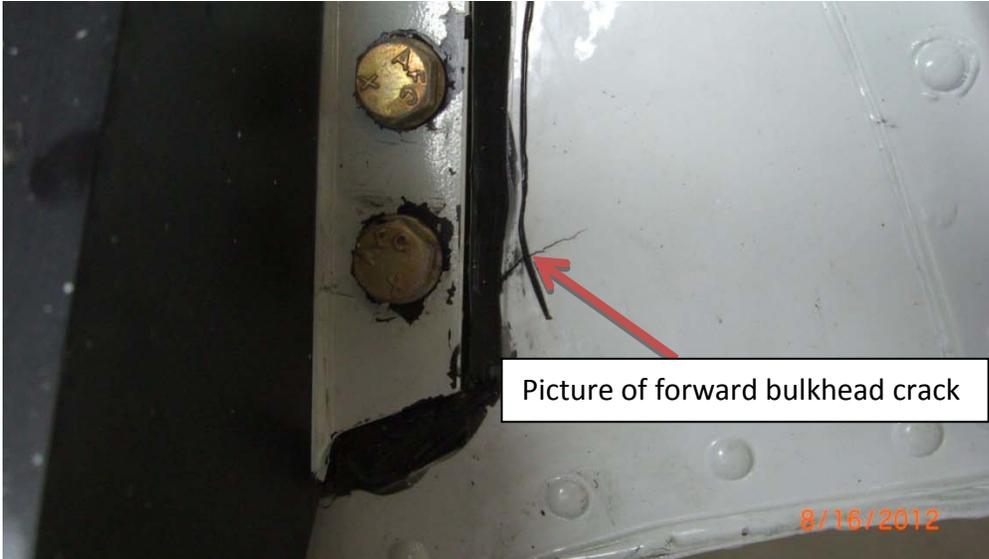
APPROXIMATE SHOP HOURS:

The functions outlined by this service bulletin will take approximately 8-10 hrs. to accomplish.

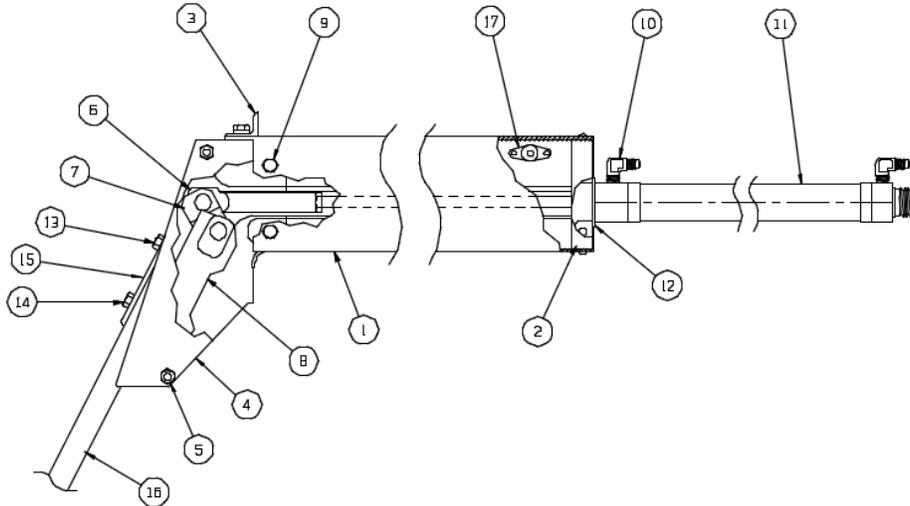
TECHNICAL DATA AND INSTRUCTIONS:

1. **Inspect nose track for loose connection.** This can be done by jacking with a pallet jack under the keel near the bow with the gear in the down position. Once the weight is off of the nose tire grab firmly at the nose track, push fore and aft. If there is play in the joint and you can see the nose bulkhead flexing then the service kit should be installed.
2. **If nose track is loose, complete the remaining steps:**
3. Remove nose box assembly and nose tracks from float.

4. Scrape sealant away and inspect nose bulkhead for cracks, especially near lower bolt attachment. If the bulkhead is cracked it must be replaced (PN 30A01155-029).

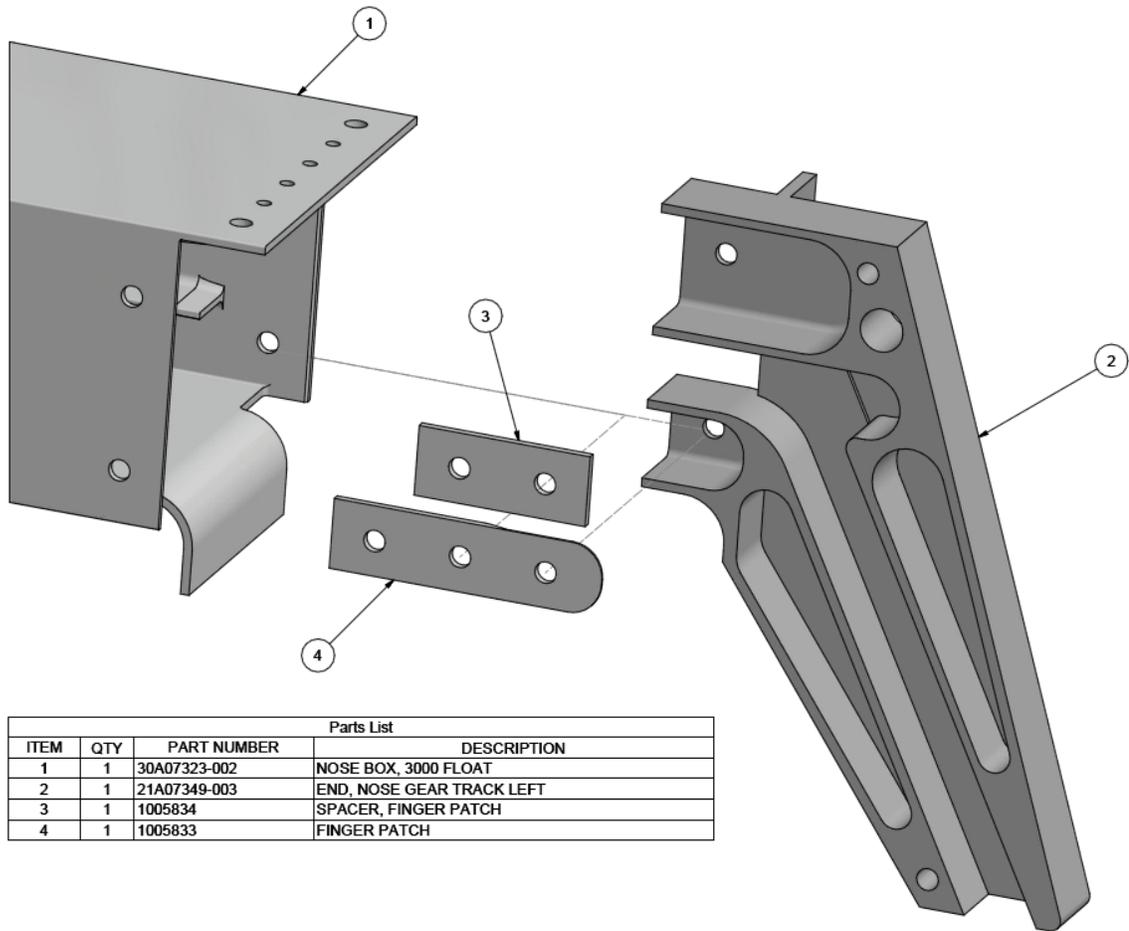


5. Unbolt nose track PN 21A07349-003 & -004 (Item 4 below) from nose box PN 30A07323-002 (Item 1 below) and inspect mating holes.



6. If holes are out of round (which is very likely if you can see flexing of the nose bulkhead in step 1) it is acceptable to upsize lower mating nose box and nose track holes (Item 9 above) from $\frac{1}{4}$ " to $\frac{5}{16}$ ".

7. **Finger Patch Installation.** To install the finger patch proceed with the following steps:



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	30A07323-002	NOSE BOX, 3000 FLOAT
2	1	21A07349-003	END, NOSE GEAR TRACK LEFT
3	1	1005834	SPACER, FINGER PATCH
4	1	1005833	FINGER PATCH

8. Fit Finger Patch PN 1005833 to Nose Track PNs 21A07349-003 & -004 by placing into bolt recess and ensuring that the patch sits flat to bolt hole face. This part should be a tight fit, remove any material on finger patch that keeps it from sitting flat.
9. Install bolt through finger patch (1005833), Nose Track (21A07349-003), and Nose Box (30A07323-002). Tighten nut to verify a good fit. Note: if the lower mating hole was opened to 5/16" the hole in the finger patch must also be opened up to 5/16"
10. Once each finger patch is fit, unbolt nose track and finger patch from nose box and fully degrease nose track and finger patch. This step is important because adhesive will be used to permanently bond the finger patch to the nose track in the next step.
11. Once finger patch and nose track have been thoroughly cleaned, use an adhesive to bond the finger patch (1005833) to the nose track (21A07349-003). Acceptable adhesives include:
 - a. Aviation Grade PR-1422-B-1/2 (Polysulfide fuel tank sealer - PRC) or equivalent



- b. 3M DP-190 (Toughened Epoxy) or similar structural adhesive
12. Once adhesive is applied to entire mating surface install a bolt through the mating hole to ensure alignment and secure bolt to apply pressure to glue joint while curing. The intention is to glue the finger patch (1005833) to the nose tracks (21A07349-003/-004) first and then reassemble with the nose box, however it is acceptable to assemble entire modification wet with PRC instead of gluing finger patch to nose track first. This wet assembly is not recommended if using a structural epoxy as it will be very difficult to disassemble in the future.
 13. Once the finger patches are glued to the nose tracks, reinstall nose tracks to nose box and transfer the two additional holes (2 each side) from the finger patch to the nose box. If the nose box/nose track mating hole was opened to 5/16" it is acceptable to open remaining finger patch and spacer (1005834) holes to 5/16" to keep mating hardware consistent.
 14. Reassemble nose box, nose tracks, and finger patch with appropriate length AN4 or AN5 hardware as appropriate.
 15. Reinstall nose box assembly into float
 16. Perform leak check on float compartments affected by maintenance

Bill of Material (quantities for modification of one float set 3000/3450)		
Part Number	Qty	Description
1005833	4	Finger Patch
1005834	4	Spacer, Finger Patch

Note(s):

1. If installing with 1/4" bolts hardware should consist of AN4-6/AN4-6A bolts with NAS1149D0463J washers, NAS1149D0416J washers, and MS21044N4 nuts
2. If installing with 5/16" bolts hardware should consist of AN5-6/AN5-6A bolts with NAS1149D0563J washers, NAS1149D0516J washers, and MS21044N5 nuts

END