



WIPLINE FLOATS | MODIFICATIONS | AIRCRAFT SALES
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SERVICE LETTER 138

10000 and 13000 Nose Gear End Cap Cracks

Aircraft Makes/Model(s):	Float Model(s):	Compliance: Mandatory	By: MAS
Air Tractor AT-802A & AT-802, DeHavilland DHC-6	10000A & 13000A	Part Number: 1003610	Approved: DRH
		Date: 8/25/2026	Revision: E

LOG OF REVISIONS

Revision	Description	Date
A	Initial release	10/12/2012
B	Updated step 15 Work Instructions and Remove and Reinstall Instructions for clarity.	12/11/2012
C	Added Kit 1003610-01.	6/27/2019
D	Updated Warranty language.	10/22/2019
E	Updated Kit 1003610-01 and added additional parts and consumables. Updated Work Instructions.	8/25/2026

FAA approval has been obtained for technical data in this publication that affects STC or TSO design compliance.

EFFECTIVITY:

All Model 10000A Amphibious Floats up to and including Serial No. 10118A.

All Model 13000A Amphibious Floats up to and including Serial No. 13178A.

COMPLIANCE:

Within the next 25 hours of operation, inspect the Nose Gear Box End Cap, part # 13A07201-003 for cracks.

BACKGROUND:

Several Nose Gear Box End Caps, part #13A07201-003 have been found to have cracks propagating from around the Cylinder Mounting Flange bolts (4). If these cracks go undetected there is a possibility that the End Cap, Part #13A07201-003 can break and let the actuator cylinder move to a selected gear position without actuating the gear properly. This condition could potentially lead to a gear indication suggesting that a selected nose gear position has been reached, when it has not.

COMPLIANCE METHOD:

A close visual inspection must be accomplished within the next 25 hours of operation, and every 50 hours thereafter. The cracks will be best visible by looking at the forward face of the End Cap, Part #13A07201-003 through the forward open end of the Nose Gear Box. It appears that the cracks start just above the top mounting bolt and just below the bottom mounting bolt as shown in Figure 1. If cracks are found, the End Cap Part #13A07201-003 must be replaced with the new revision, End Cap, Part #13A07201-003, Revision E, dated October 2nd, 2012 or later. In addition, replace the (4)AN3-20A mounting bolts with (4) AN3-21A bolts. After inspection and/or replacement, re-adjust the gear "down" over-center lock so that it hits the end of the lock-up track and has little to no preload pressure, since the preload pressure would cause extra stress at the Cylinder Mounting Flange and the End Cap. Replacement of the older revision parts with revision E parts will eliminate the requirement for 50 hour interval inspections, but this inspection should still be accomplished at 100 hour intervals thereafter. Revision E parts can be identified by (4) added slots as shown in Figure 2.

APPROXIMATE SHOP HOURS:

Inspection - 1 hour

Replacement of End Caps - 5-8 hours per float

WARRANTY INFORMATION:

No longer applicable. Warranty has expired.

TECHNICAL DATA:

Drawing # 13A07201-003 (Revision E or later)

NOTES: Figure 1 shows the part that is cracked, and Figure 2 shows its location on the nose box assembly. This is the forward side of the part which can be seen looking into the open (front) end of the nose gear box. No disassembly should be required to examine this area. The area should be thoroughly cleaned before inspecting. Use good lighting. If in doubt, dye penetrant inspection can also be accomplished.



If evidence of cracking is found in Nose Box End Cap either by visual or dye penetrant inspection per Figure 1, the following instructions will be accomplished to replace damaged Nose Box End Cap:

ITEMS PROVIDED IN KIT 1003610-01 (PARTS MAY BE ORDERED INDIVIDUALLY)			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	13A07201-003 (Rev E or later)	END CAP - NOSE BOX
2	4	AN3-21A	BOLT, 10-32, 1.75 GRIP, UNDRILLED, STEEL

ADDITIONAL PARTS AND CONSUMABLES REQUIRED			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	A/R	MS20426AD5	FLUSH HEAD RIVETS
2	A/R	NAS1097AD6	FLUSH HEAD RIVETS, REDUCED
3	A/R	MS20470AD5 OR AD6	UNIVERSAL HEAD RIVETS
4	A/R	PR-1422 B-2 (OR EQUIVALENT)	SEALANT

Work Instructions

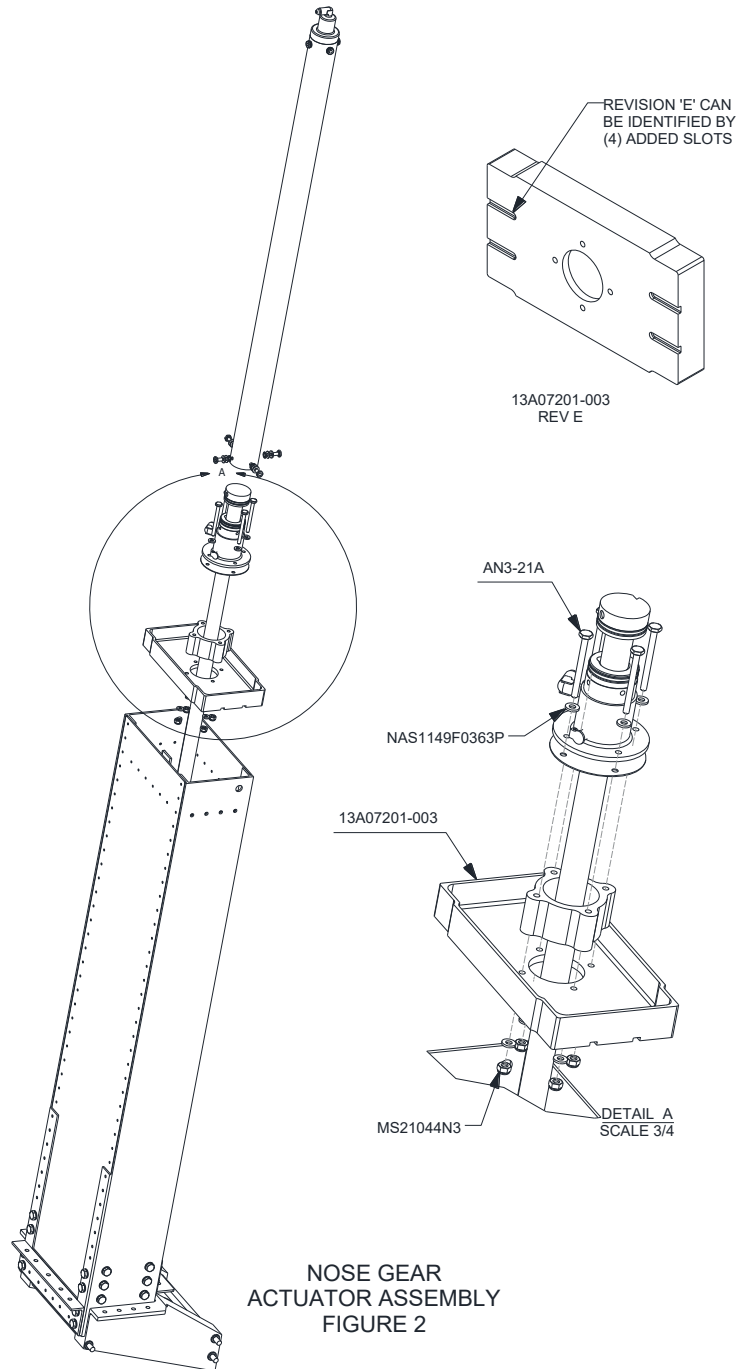
1. Position aircraft safe for maintenance.
2. Support aircraft on jacks so that there is no weight on float landing gear.
3. Remove forward float deck access cover to access Nose Box End Cap.
4. Pull "PUMP 1" and "PUMP 2" Circuit Breakers and move Gear Selector to center position to relieve hydraulic pressure.
5. Disconnect Hydraulic Fitting on Nose Gear Actuator. Cap plug and fittings.
6. Remove Nose Gear Box Assembly per Maintenance Manual. Save hardware for reinstallation.
7. Remove bolts (4) and washers (4) from Hydraulic Actuator Cylinder and separate from Nose Box Assembly.

CAUTION: Hydraulic fluid will drain from cylinder.

8. Disconnect and remove Hydraulic Ram from Nose Gear Rod End by rotating counterclockwise. Count threads showing on Nose Gear Rod End for reinstallation.
9. Remove Bolts (4), washers (4), and Nuts (4) from Cylinder Flange Assembly.
10. Remove Cylinder Flange Assembly, Flange Plate, and Flange Cylinder Nose Gear Ram Spacer.
11. Drill out all rivets securing Nose box End Cap and remove.

NOTE: Proper Surface Cleaning and Preparation must be accomplished prior to installation of Replacement Nose Box End Cap.

12. Install Nose Box End Cap and back drill, using #30 drill bit, for initial fitment.
13. Remove Nose Box End Cap and remove any burrs left from back drilling.
14. Apply a thin coat of Sealant to End Cap surface that will contact the Nose Box Assembly.
15. Reinstall Nose Box End Cap and Secure top and bottom of Nose Box with MS20470AD5 or AD6 rivets and sides of Nose Box with MS20426AD5 or NAS1097AD6.
16. Apply a thin coat of Sealant to Cylinder Flange Assembly, Flange Plate, and Flange Cylinder Nose Gear Ram Spacer mating surfaces and reinstall with replacement AN3-21A Bolts (4), washers (4), and Nuts (4).
17. Torque bolts to standard tension torque per AC43.13-1B.
18. Install Hydraulic Ram, noting amount of threads from step 8 are showing on Nose Gear Rod End.
19. Install Hydraulic Actuator Cylinder, taking care not to pinch packings.
20. Secure with hardware from Step 6.
21. Reinstall Nose Gear Box Assembly per Maintenance Manual.
22. Apply bead of Sealant around Nose gear assembly for water tight seal.
23. Connect Hydraulic line to Hydraulic Cylinder.
24. Readjust the gear "down" over-center lock so that it hits the end of the lock-up track and has little to no preload pressure per Maintenance Manual.
25. Bleed Hydraulic System per Maintenance Manual.
26. Final gear swing and travel check must be accomplished before jacks are removed.
27. Remove aircraft from jacks.
28. Return aircraft to service.



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	13A07201-003	END CAP - NOSE BOX
2	4	AN3-21A	BOLT, 10-32, 1.75 GRIP, UNDRILLED, STEEL
3	8	NAS1149F0363P	WASHER, 0.203 ID, 0.063 THK, STEEL
4	4	MS21044N3	NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF

Aircraft Closing & Return to Service

1. Upon completion of inspection, enter information in Aircraft Logbook for completion of Wipaire Service Letter 138.