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 AVIONICS • INTERIOR • MAINTENANCE • PAINT REFINISHING

## SERVICE LETTER 269

### WATER RUDDER REMOVAL ON 10000 LEFT HAND FLOAT

<b>Aircraft Makes/Model(s):</b>	<b>Float Model(s):</b>	<b>Compliance:</b> Optional	<b>By:</b> MAS
Air Tractor AT-802A & AT-802	10000A	<b>Part Number:</b> 1012726	<b>Approved:</b> DRH
		<b>Date:</b> 3/17/2026	<b>Revision:</b> B

#### LOG OF REVISIONS

Revision	Description	Date
A	Initial release	1/20/2025
B	Full rewrite of service letter.	3/17/2026

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

#### EFFECTIVITY:

This service letter applies to Air Tractor AT-802 and AT-802A model aircraft with Wipline 10000 amphibian floats with water rudders installed per STC SA01795CH.

#### COMPLIANCE:

Compliance is optional.

#### BACKGROUND:

In an effort to reduce weight and move the center of gravity forward, the water rudder, cables, and cable routing parts may be removed from the left hand 10000A float.

#### COMPLIANCE METHOD:

Remove and install parts in accordance with work instructions in this service letter.

#### APPROXIMATE SHOP HOURS:

Performing the work instructions will take approximately 5-10 hours depending on how many of the float and pylon cable routing parts are removed.

#### WEIGHT AND BALANCE:

Description	Weight	Arm
Remove LH water rudder and cables from LH float. Remove fuselage brackets that route cables to the LH pylon.	-11.87 lb	189.53 in
Remove additional pulley brackets and parts from LH float and pylon (optional).	-2.60 lb	130.77 in
Add fuselage brackets and braces for RH water rudder cable routing.	1.22 lb	66.80 in

Configurations and precise locations vary. Weighing aircraft is recommended.

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**WARRANTY INFORMATION:**

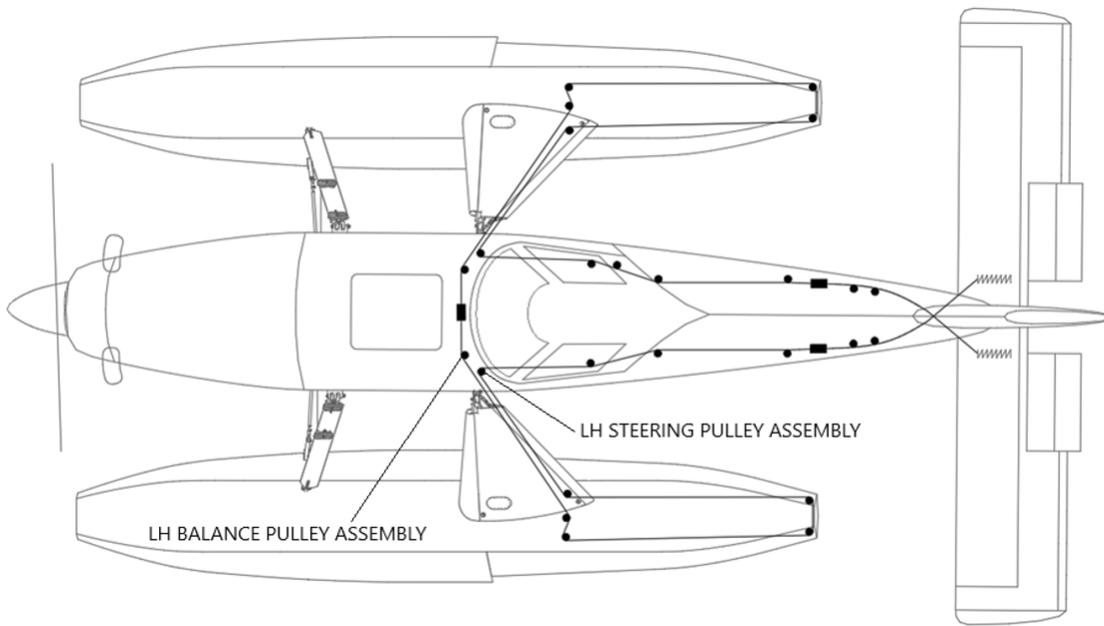
This service letter does not include warranty for labor or parts.

**TECHNICAL DATA:**

Copies of this service letter, associated service kit (if applicable), float service manual, and float parts manual are available at [www.wipaire.com](http://www.wipaire.com).

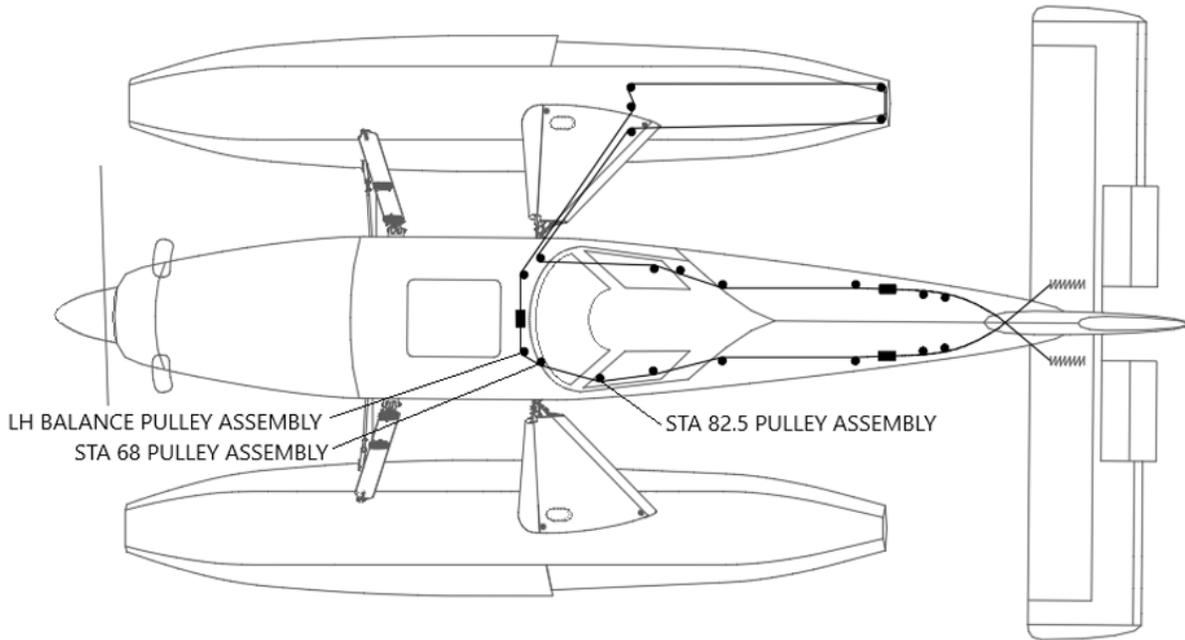
**OVERVIEW:**

The existing water rudder steering cable routing with both water rudders installed is shown in Figure 1. Each steering cable runs from the aircraft rudder horn, through the fuselage, down each respective pylon, and through each float to the water rudder. A balance cable then travels between the two float water rudders to complete the steering cable system. Note that there is a turnbarrel in each wire run for adjustment.

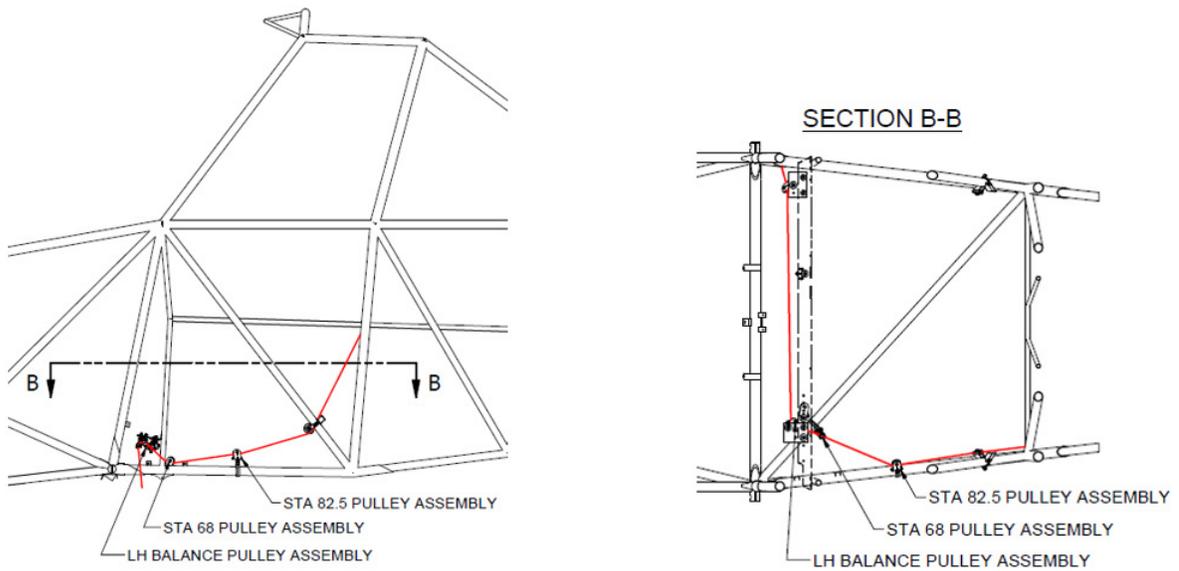


**FIGURE 1: 2-WATER RUDDER CABLE ROUTING**

The removal of the water rudder from the LH float requires a change to the water rudder cable routing making 2 steering cables that run from the aircraft rudder to the RH water rudder. The LH steering pulley is removed, pulley assemblies at STA 82.5 and 68 are added, and the LH steering cable and balance cable are combined to create the new steering cable. See Figure 2 and Figure 3 for overview reference.



**FIGURE 2: SINGLE WATER RUDDER CABLE ROUTING**



**FIGURE 3: SINGLE WATER RUDDER CABLE ROUTING**



ITEMS PROVIDED IN SERVICE KIT 1012726-01 (1 PER AIRCRAFT)			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1012705	COVER, WATER RUDDER CABLE REMOVAL, BULKHEAD 22
2	2	1012706	COVER, WATER RUDDER CABLE REMOVAL, BULKHEAD 21
3	1	1011871	BRACKET, STEERING AND BALANCE
4	2	1008959	BRACKET, PULLEY
5	1	10A12162-068	BRACKET, PULLEY, FUSELAGE
6	1	1008986	PLATE, BALANCE PULLEY
7	1	10A12156-184	PLATE, PULLEY SUPPORT
8	3	MS24566-1B	PULLEY, CONTROL, ANTI-FRICTION BEARING
9	1	638	BUMP STOP, DOOR
10	2	12196-1	BRACE, PANEL
11	1	10A12216-005	CLAMP, PULLEY SUPPORT
12	4	10A12214-007	CLAMP, BRACE, STEERING
13	1	5428	HOSE CLAMP, 1-1/4 TO 2-1/4, SSTL
14	1	10A12566-010	GASKET, CLAMP
15	1	NAS43DD3-20FC	SPACER, 5/16 IN
16	1	NAS43DD3-64FC	SPACER, 1 IN (FOR MANUAL RETRACT)
17	1	MS21252-3LS	CLEVIS-ROD END, TURNBUCKLE, CLIP LOCKING
18	1	10A08000-166	CABLE, RETRACT
19	8	MS21256-1	TURNBARREL LOCKING CLIP
20	1	MS21260S3 LH	TERMINAL-WIRE ROPE, STUD LH
21	1	MS21260S3 RH	TERMINAL-WIRE ROPE, STUD RH
22	3	MS24665-285	COTTER PIN
23	1	NAS561P4-12	ROLL PIN
24	2	AN3-4A	BOLT, 10-32, 1/16" GRIP, 17/32 LG
25	4	AN3-5A	BOLT, 10-32, 1/16" GRIP, 17/32 LG
26	2	AN3-6A	BOLT, 10-32, 3/8 GRIP, 25/32 LG
27	1	AN3-10A	BOLT, 10-32, 5/8 GRIP, 1-1/32 LG
28	2	AN3-15A	BOLT, 10-32, 1-1/4 GRIP, 1-21/32 LG
29	1	AN3-16A	BOLT, 10-32, 1-3/8 GRIP, 1-25/32 LG
30	2	AN3-17A	BOLT, 10-32, 1-1/2 GRIP, 1-29/32 LG
31	1	AN3-21A	BOLT, 10-32, 1-3/4 GRIP, 2-5/32 LG
32	1	AN4-5A	BOLT, 1/4-28 , 3/16" GRIP, 21/32" LG
33	1	AN6C36A	BOLT, 3/8-24, 3-3/16 GRIP, 3-53/64 LG, CR STEEL
34	1	AN42B4A	EYE BOLT, 10-32, 1/8 GRIP, 17/32 LG
35	2	AN42B17A	EYEBOLT, 10-32, 1-1/2 GRIP, 1-29/32 LG
36	5	AN43B4A	EYEBOLT, 1/4-28, 1/16" GRIP, 17/32 LG
37	1	MS35206-230	SCREW, 6-32
38	20	MS21044N3	NUT, LOCKING, 10-32
39	1	MS21044N06	NUT, 6-32
40	5	MS21044N4	NUT, LOCKING, 1/4-28
41	1	MS21083N6	NUT, LOCKING, LOW HEIGHT, 3/8-24
42	19	NAS1149F0332P	WASHER, 0.203 ID, .032 THK, STEEL

ITEMS PROVIDED IN SERVICE KIT 1012726-01 (1 PER AIRCRAFT) CONTINUED			
ITEM	QTY	PART NUMBER	DESCRIPTION
43	6	NAS1149F0363P	WASHER, 0.203 ID, .063 THK, STEEL
44	1	NAS1149FN632P	WASHER, #6, .032 THK, STEEL
45	4	AN970-3	LARGE AREA WASHER, #10
46	4	AN970-4	LARGE AREA WASHER, 1/4"

**PARTS LISTS BY LOCATION (SUBSETS OF LIST ABOVE):**

**FIGURE 5:**

PARTS LIST - BULKHEADS 21, 22 (REFERENCE, SUBSET OF 1012726-01 KIT)			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1012705	COVER, WATER RUDDER CABLE REMOVAL, BULKHEAD 22
2	2	1012706	COVER, WATER RUDDER CABLE REMOVAL, BULKHEAD 21

**FIGURE 6:**

PARTS LIST - PULLEY STA82.5 (REFERENCE, SUBSET OF 1012726-01 KIT)			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1011871	BRACKET, STEERING AND BALANCE
2	1	5428	HOSE CLAMP, 1-1/4 TO 2-1/4, SSTL
3	1	10A12566-010	GASKET, CLAMP
4	1	1008959	BRACKET, PULLEY
5	1	MS24566-1B	PULLEY, CONTROL, ANTI-FRICTION BEARING
6	1	AN3-6A	BOLT, 10-32, 3/8 GRIP, 25/32 LG
7	1	AN3-15A	BOLT, 10-32, 1-1/4 GRIP, 1-21/32 LG
8	1	AN42B4A	EYE BOLT, 10-32, 1/8 GRIP, 17/32 LG
9	3	MS21044N3	NUT, LOCKING, 10-32
10	5	NAS1149F0332P	WASHER, 0.203 ID, .032 THK, STEEL
11	2	NAS1149F0363P	WASHER, 0.203 ID, .063 THK, STEEL
12	1	MS24665-285	COTTER PIN
13	1	638	BUMP STOP, DOOR
14	1	MS35206-230	SCREW, 6-32
15	1	MS21044N06	NUT, 6-32
16	1	NAS1149FN632P	WASHER, #6, .032 THK, STEEL

**FIGURE 7:**

PARTS LIST - AUX PULLEY STA 68 (REFERENCE, SUBSET OF 1012726-01 KIT)			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	10A12156-184	PLATE, PULLEY SUPPORT
2	1	10A12162-068	BRACKET, PULLEY, FUSELAGE
3	1	10A12216-005	CLAMP, PULLEY SUPPORT
4	1	NAS43DD3-20FC	SPACER, 5/16 IN

<b>PARTS LIST - AUX PULLEY STA 68 (REFERENCE, SUBSET OF 1012726-01 KIT) CONTINUED</b>			
<b>ITEM</b>	<b>QTY</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>
5	1	AN3-10A	BOLT, 10-32, 5/8 GRIP, 1-1/32 LG
6	1	AN3-16A	BOLT, 10-32, 1-3/8 GRIP, 1-25/32 LG
7	1	AN3-21A	BOLT, 10-32, 1-3/4 GRIP, 2-5/32 LG
8	1	MS24665-285	COTTER PIN
9	3	MS21044N3	NUT, LOCKING, 10-32
10	3	NAS1149F0332P	WASHER, 0.203 ID, .032 THK, STEEL
11	1	NAS1149F0363P	WASHER, 0.203 ID, .063 THK, STEEL
12	1	MS24566-1B	PULLEY, CONTROL, ANTI-FRICTION BEARING

**FIGURE 9:**

<b>PARTS LIST - LH BALANCE PLATE REPOSITION (REFERENCE, SUBSET OF 1012726-01 KIT)</b>			
<b>ITEM</b>	<b>QTY</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>
1	1	AN4-5A	BOLT, 1/4-28 , 3/16" GRIP, 21/32" LG
2	1	AN970-4	WASHER, LARGE AREA, 1/4
3	2	MS21044N4	NUT, LOCKING, 1/4
4	1	MS21044N3	NUT, LOCKING, 10-32

**FIGURE 10:**

<b>PARTS LIST - BRACES (REFERENCE, SUBSET OF 1012726-01 KIT)</b>			
<b>ITEM</b>	<b>QTY</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>
1	2	12196-1	BRACE, PANEL
2	4	AN43B4A	EYEBOLT, 1/4-28, 1/16" GRIP, 17/32 LG
3	2	AN970-4	LARGE AREA WASHER, 1/4"
4	4	10A12214-007	CLAMP, BRACE, STEERING
5	2	AN42B17A	EYEBOLT, 10-32, 1-1/2 GRIP, 1.906 LG
6	2	AN3-17A	BOLT, 10-32, 1-1/2 GRIP, 1.906 LG
7	2	AN3-5A	BOLT, 10-32 , 3/16" GRIP, 21/32" LG
8	2	AN3-4A	BOLT, 10-32, 1/16" GRIP, 17/32 LG
9	2	MS21044N4	NUT, LOCKING, 1/4-28
10	8	MS21044N3	NUT, LOCKING, 10-32
11	2	NAS1149F0363P	WASHER, 0.203 ID, .063 THK, STEEL
12	8	NAS1149F0332P	WASHER, 0.203 ID, .032 THK, STEEL

**FIGURE 11:**

<b>PARTS LIST - GUIDE PULLEY (REFERENCE, SUBSET OF 1012726-01 KIT)</b>			
<b>ITEM</b>	<b>QTY</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>
1	1	1008986	PLATE, BALANCE PULLEY
2	1	1008959	BRACKET, PULLEY
3	1	AN3-15A	BOLT, 1/4-28, 1.1875 GRIP, UNDRILLED, STEEL

<b>PARTS LIST - GUIDE PULLEY (REFERENCE, SUBSET OF 1012726-01 KIT) CONTINUED</b>			
<b>ITEM</b>	<b>QTY</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>
4	1	AN3-6A	BOLT, 10-32, 0.375 GRIP, UNDRILLED, STEEL
5	1	AN43B4A	EYEBOLT, 1/4-28, 1/16" GRIP, 17/32 LG
6	1	MS24566-1B	PULLEY, CONTROL, ANTI-FRICTION BEARING
7	1	MS24665-285	COTTER PIN
8	1	AN970-4	LARGE AREA WASHER, 1/4"
9	2	AN3-5A	BOLT, 10-32, 1/16" GRIP, 17/32 LG
10	4	AN970-3	LARGE AREA WASHER, 1#10
11	1	MS21044N4	NUT, LOCKING, 1/4-28
12	4	MS21044N3	NUT, LOCKING, 10-32
13	1	NAS1149F0363P	WASHER, 0.203 ID, .063 THK, STEEL
14	3	NAS1149F0332P	WASHER, 0.203 ID, .032 THK, STEEL

**FIGURE 12:**

<b>PARTS LIST - RETRACT (REFERENCE, SUBSET OF 1012726-01 KIT)</b>			
<b>ITEM</b>	<b>QTY</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>
1	1	NAS43DD3-64FC	SPACER, 1 IN (FOR MANUAL RETRACT)
2	1	MS21252-3LS	CLEVIS-ROD END, TURNBUCKLE, CLIP LOCKING (FOR ELEC RETRACT)
3	1	MS21044N3	NUT, LOCKING, 10-32

**FIGURE 13:**

<b>PARTS LIST - CABLING (REFERENCE, SUBSET OF 1012726-01 KIT)</b>			
<b>ITEM</b>	<b>QTY</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>
1	1	10A08000-166	CABLE, RETRACT
2	8	MS21256-1	TURNBARREL LOCKING CLIP
3	1	MS21260S3 LH	TERMINAL-WIRE ROPE, STUD LH
4	1	MS21260S3 RH	TERMINAL-WIRE ROPE, STUD RH

**FIGURE 14:**

<b>PARTS LIST - WATER RUDDER (REFERENCE, SUBSET OF 1012726-01 KIT)</b>			
<b>ITEM</b>	<b>QTY</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>
1	1	AN6C36A	BOLT, 3/8-24, 3.188 GRIP, UNDRILLED, CR STEEL
2	1	NAS561P4-12	ROLL PIN
3	1	MS21083N6	NUT, LOCKING, LOW HEIGHT, 3/8-24

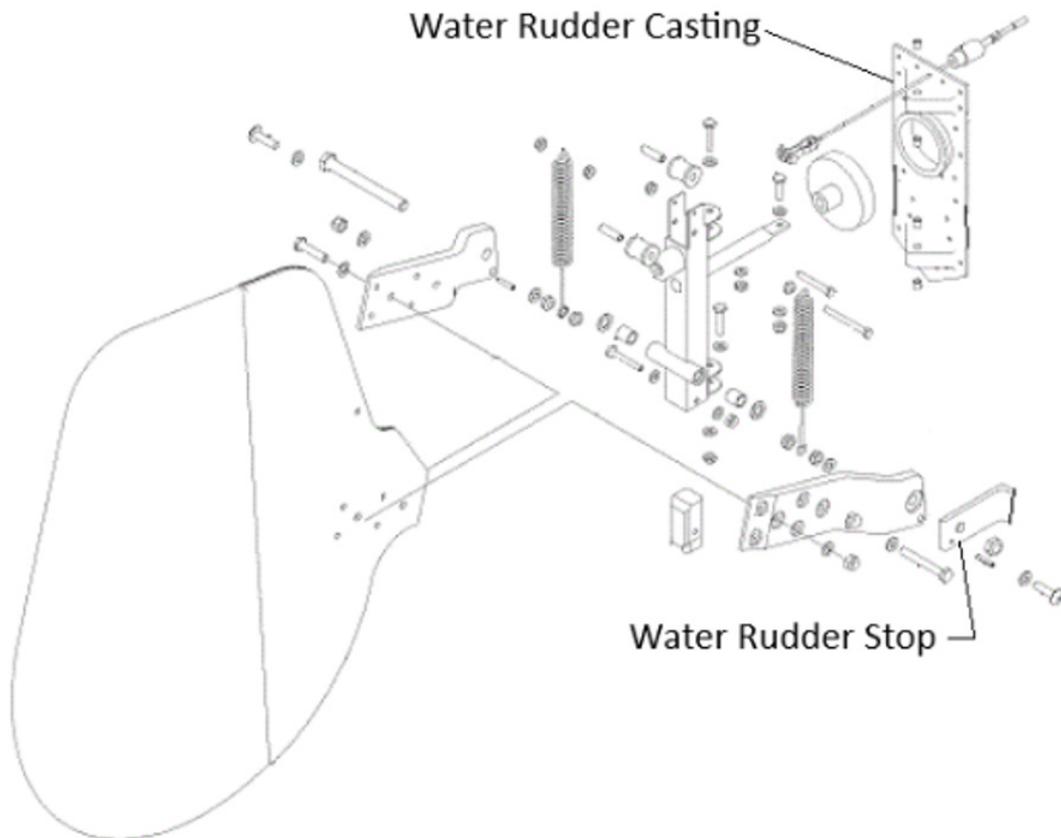
## Work Instructions

Reference the following documents for instructions pertaining to inspection and repair when completing the following tasks:

- AC43.13-1B or later FAA approved revision guidelines.
- Structural Repair Manual for Wipline Aluminum Floats, Wipaire document number 1008274.

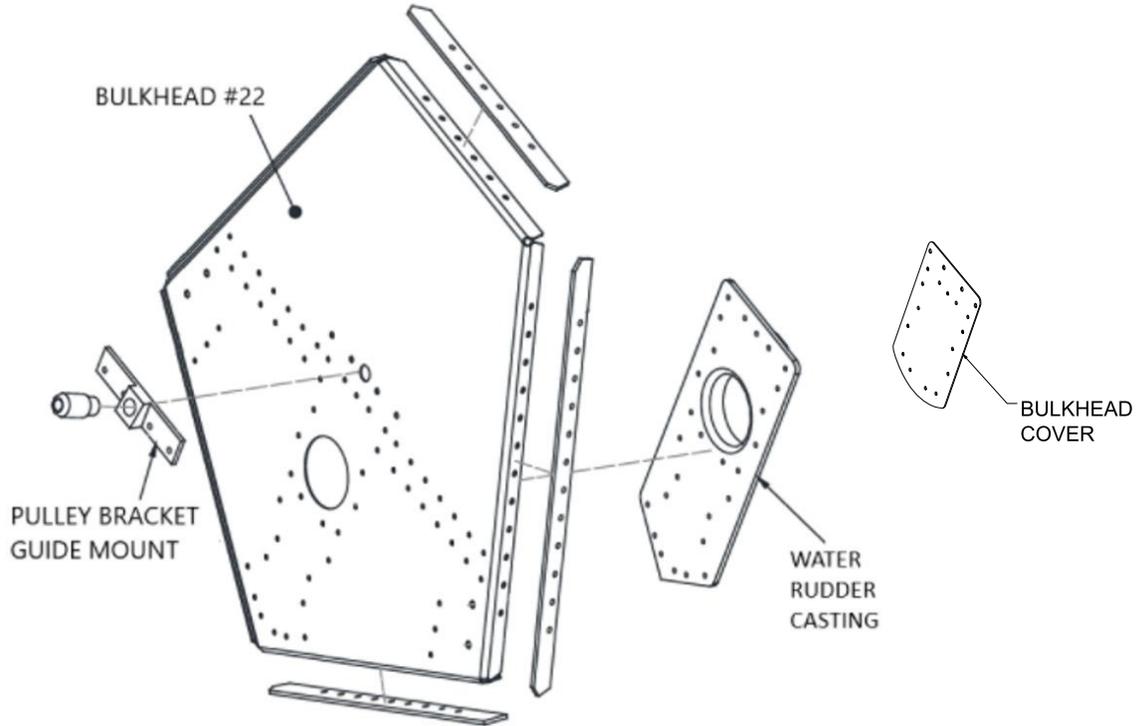
### Float & Pylon

1. Put the water rudders in the down position. If the water rudder system has an electric retract motor, pull the circuit breaker "W.R. RETRACT."
  2. Loosen LH water rudder steering and retract cables at turnbarrels. Disconnect the retract cable, steering cable, and balance cable from the LH water rudder attachment location at the aft end of the LH float.
  3. Cable ends can be cut and removed through the LH float and the LH pylon. The LH retract cable 10A08000-166 can be completely disconnected and removed - for manual retract systems this includes the two short (~2.5ft) cables which "Y" from the retract handle, P/N 10A08000-169. Refer to Figure 13. Leave the steering and balance cables at length until it is determined how the cables will be run and terminated in Step 16.
- Note:** Refer to Wipaire Parts Manual 1002179 as needed to confirm part references in steps 4-8.
4. With cables out of the way, remove all LH water rudder parts attached to water rudder casting 3A01437-001. Keep water rudder stop 10A08426-012 to be added to the RH water rudder in Step 17.



**FIGURE 4: LH WATER RUDDER PARTS**

5. Drill out the rivets to remove water rudder casting 3A01437-001. See Figure 5.
6. From the inside of the float, drill out the rivets and remove pulley bracket guide mount 10A08033-004. See Figure 5.



**FIGURE 5: BULKHEAD #22 PARTS**

7. Use water rudder bulkhead cover 1012705 on the aft side of bulkhead #22. Use PR-1422 sealant between the cover and the bulkhead before riveting. Fill existing holes in bulkhead #22 with rivets.
8. For the remaining sections of the LH float and pylon, it is left to the discretion of the customer or installer regarding how to fill the holes left by removing the cables or whether any other pulleys and brackets are removed. Sections must be repaired in accordance with AC43.13-1B or Wipaire Structural Repair Manual 1008274. Additional water rudder cable cover parts 1012706 are included in this service letter kit to replace the pulley bracket guides (10A08251-004/10A08251-005) in bulkhead #21.

## Aircraft

9. Remove the LH steering pulley bracket at fuselage station 62.63 near the LH top pylon attach. Repurpose bracket 1011871 to construct pulley/bracket assembly at STA 82.5. Refer to Figure 3 for location Figure 6 for assembly.

**Note:** Air Tractor bracket 11128-1 was previously used in place of Wipaire bracket 1011871 for two-rudder cable install, and is also compatible.



STA62.63  
 LH STEERING PULLEY  
 ASSEMBLY LOCATION

SALVAGE BRACKET  
 1011871 (WIPAIRE) OR  
 11128-1 (AIR TRACTOR)  
 AND RELOCATE TO STA 82.5

5428 CLAMP  
 10A12566-010 GASKET

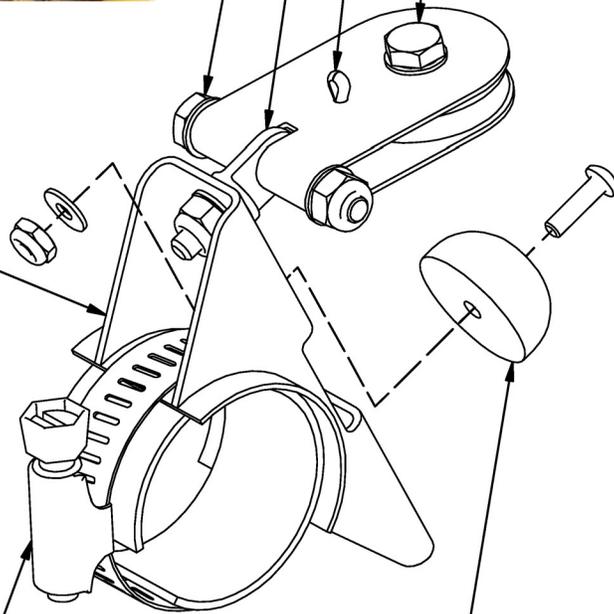
MS35206-230 SCREW  
 638 BUMPER  
 NAS1149FN632P WASHER  
 MS21044N06 NUT

AN3-15A BOLT  
 NAS1149F0332P WASHER (2)  
 MS21044N3 NUT

AN42B4A EYEBOLT  
 NAS1149F0363P WASHER  
 NAS1149F0332P WASHER  
 MS21044N3 NUT

MS24665-285 COTTER PIN

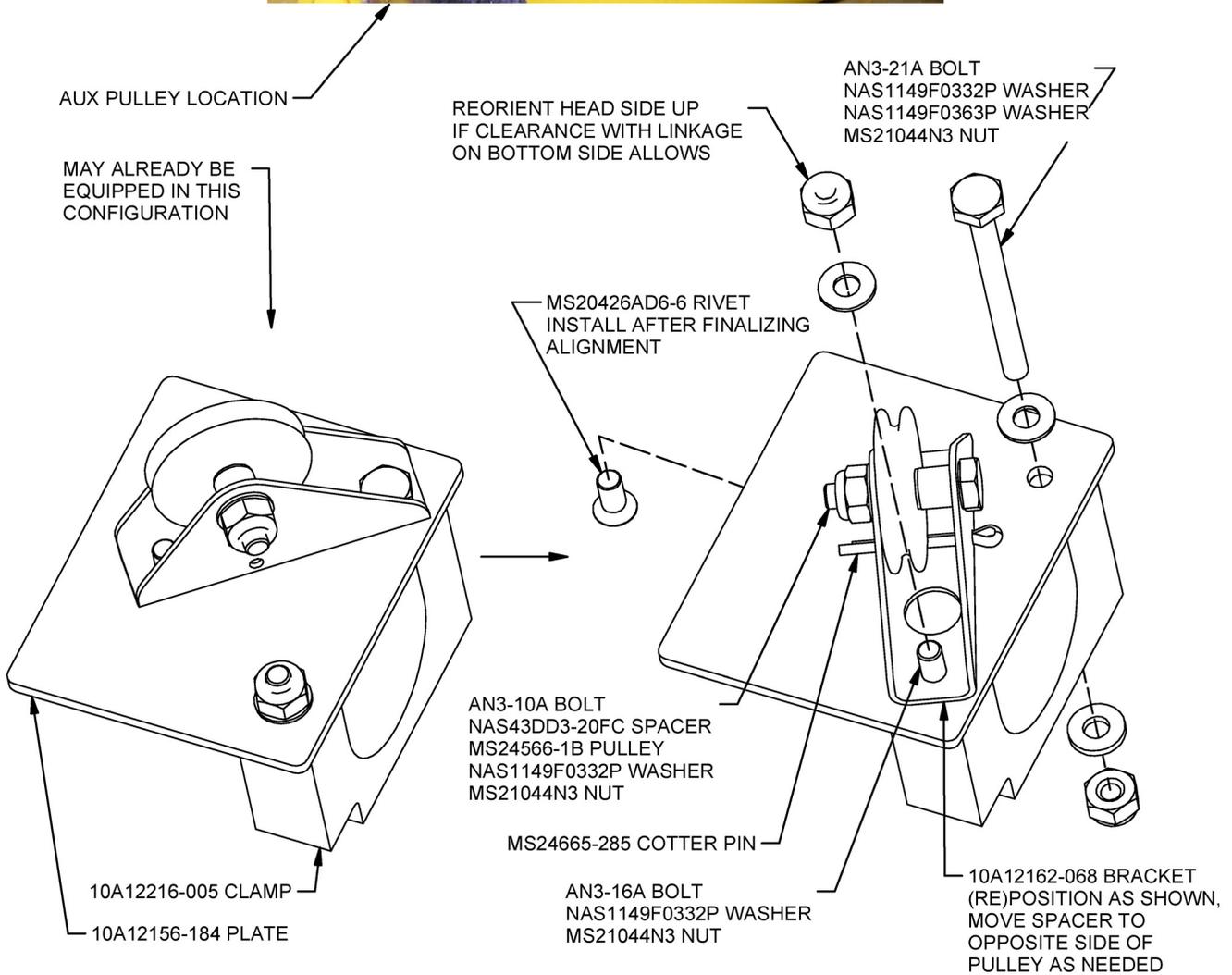
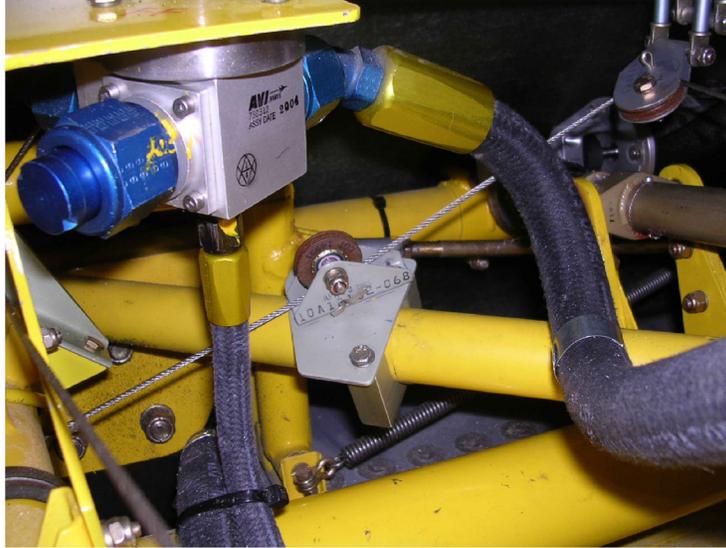
AN3-6A BOLT  
 NAS1149F0332P WASHER  
 1008959 PULLEY BRACKET  
 MS24566-1B PULLEY  
 NAS1149F0363 WASHER  
 MS21044N3 NUT



**FIGURE 6: RECONFIGURE LH STEERING PULLEY ASSEMBLY, STA 82.5**

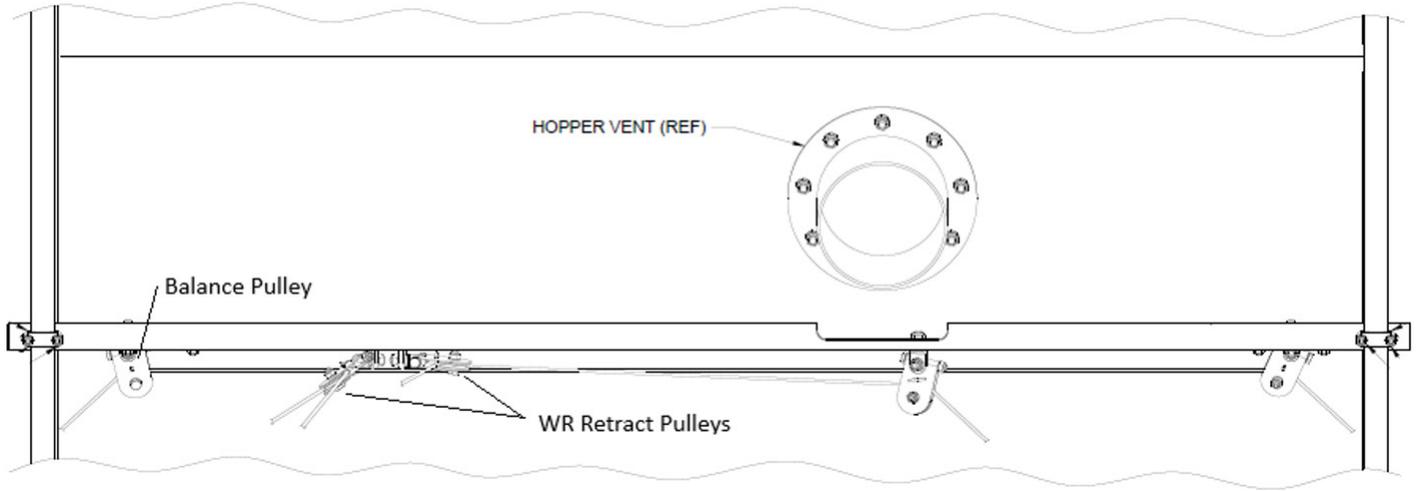
10. Rework auxiliary pulley as shown in Figure 7. Add NAS1149F0363P washer from kit to forward bolt location. Align pulley but do not install new countersunk rivet until cable routing is finalized (step 16)

**Note:** Auxiliary pulley has become optional for two-rudder install but remains very common. New parts are provided in service letter kit to be used as needed.



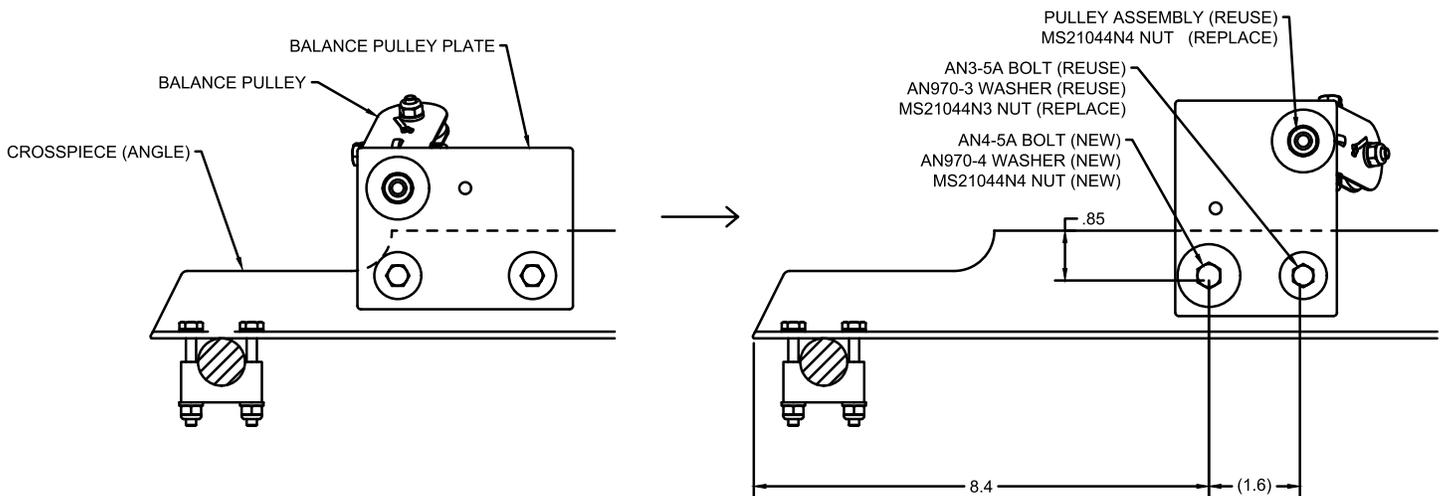
**FIGURE 7: AUXILIARY PULLEY ASSEMBLY**

11. The next step is to reconfigure the pulleys on the crosspiece (angle) mounted to vertical fuselage tubes at STA. 67.88. Figure 8 view is looking forward at the aft side of the hopper.



**FIGURE 8: PULLEY ANGLE AT STA 67.88**

- a. Remove the RH WR Retract Pulley. The LH WR Retract Pulley becomes the single water rudder retract pulley that will direct the single cable to the RH float.
- b. The LH Balance Pulley and plate assembly needs to be moved and reconfigured for the new cable routing. Remove the plate from the long angle bracket, remove pulley assembly from the plate, rotate the plate 90 degrees counterclockwise, and move it per the dimensions shown in Figure 9 or as far inboard as you can without interfering with the WR Retract Pulley. Reattach the plate to the long angle bracket and reattach the pulley assembly to the forward-most hole on the plate. Upsize hole at new pulley location to accept 1/4" eyebolt. New 1/4" hardware is provided in kit for the former pulley hole which is now to be fastened to crosspiece. Make sure that eye bolts are not over-tightened such that they cannot turn to adjust pulley position.

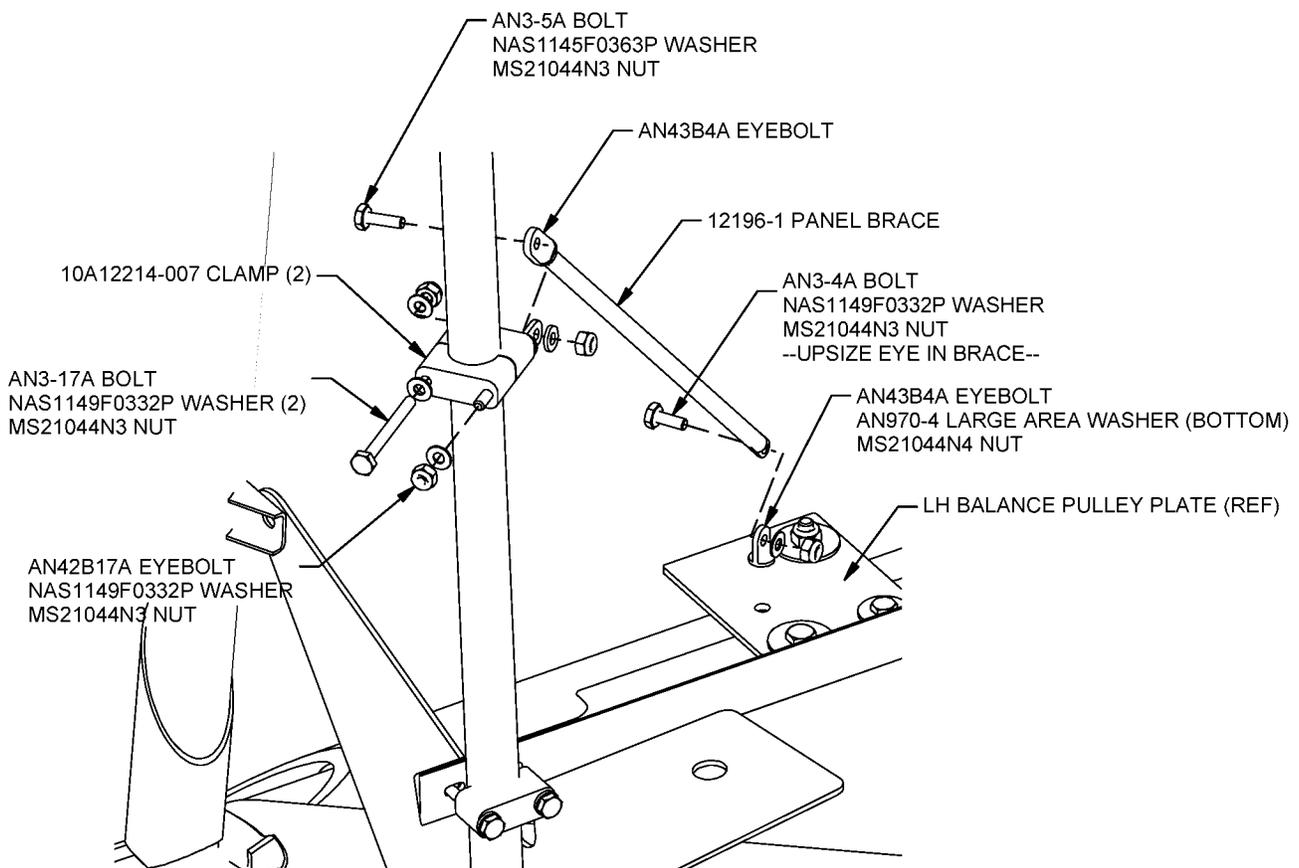


**FIGURE 9: BALANCE PULLEY BRACKET - BEFORE & AFTER**

12. Install braces at STA 67.88. Refer to Figure 10.

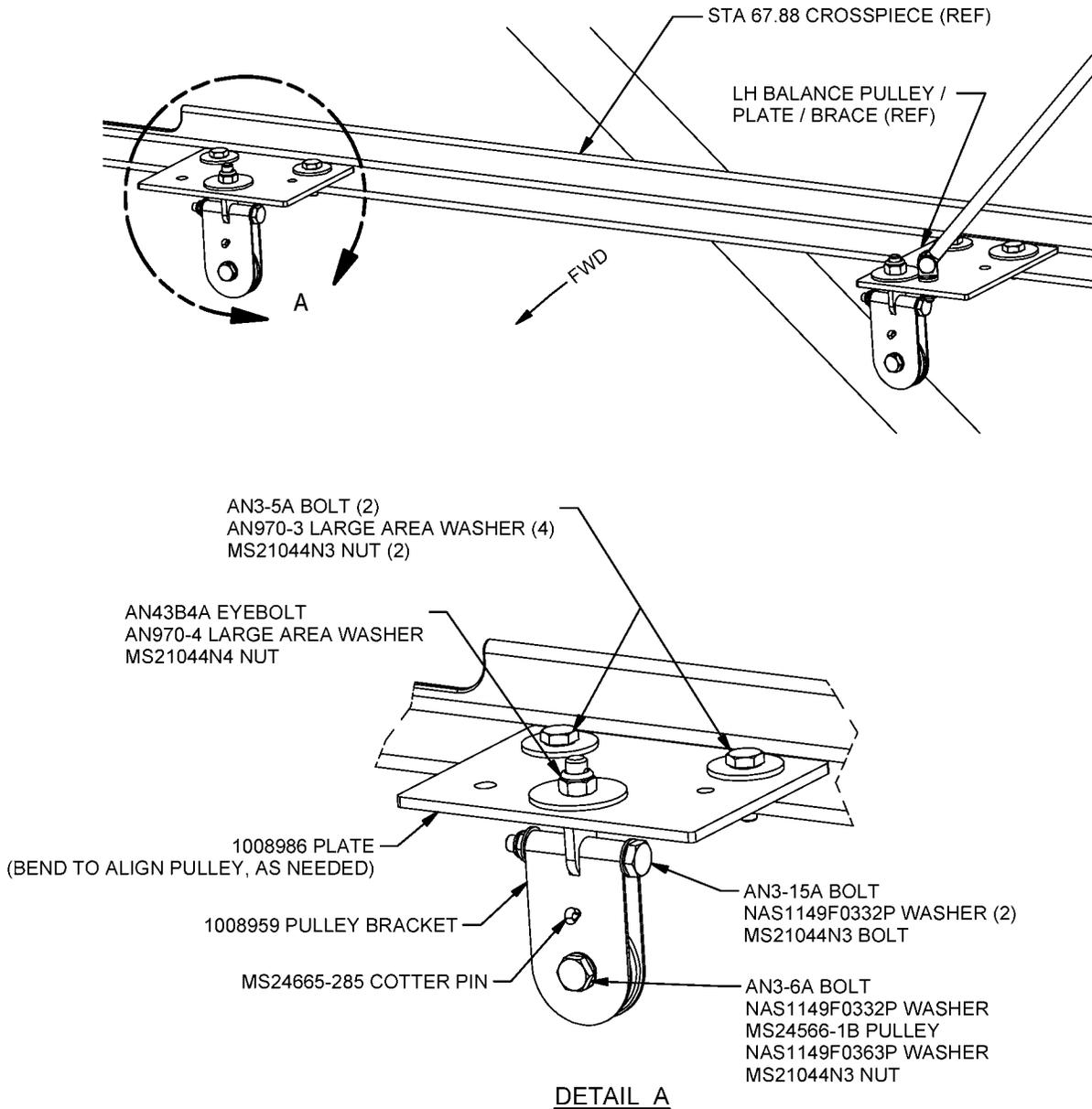
**Note:** This step is optional if hydraulics are located at this forward location. See Service Letter 265 for details.

- a. Beginning on LH side, locate (2) 10A12214-007 clamps on vertical tube between ground fill vent pulley and bleed air hose. Loosely fasten with hardware shown to allow adjustment during following steps.
- b. Minimally upsize eye of brace for 3/16" hardware. Assemble eyebolts to brace and loosely fasten to AN42B17A eyebolt at the clamps installed in previous step. Rotate clamps so that AN43B17A eyebolt points towards LH balance pulley plate.
- c. Locate lower brace attachment point on LH balance pulley plate, keeping in mind proper clearance for AN970-4 large area washer. Drill 0.25" hole at the identified location.
- d. Install remaining hardware and tighten all fasteners, working from bottom to top, ensuring no pre-stress in the brace. Check clearance of clamps with aircraft panels, re-orienting as needed. AN3-17A bolt may be installed in orientation shown to provide clearance.
- e. Repeat steps a-d on RH side, with notable differences:
  - i. There are fewer/no clearance issues on the RH vertical tube member, and
  - ii. The open 1/4" hole in the RH balance pulley plate can likely be used rather than drilling an additional hole.



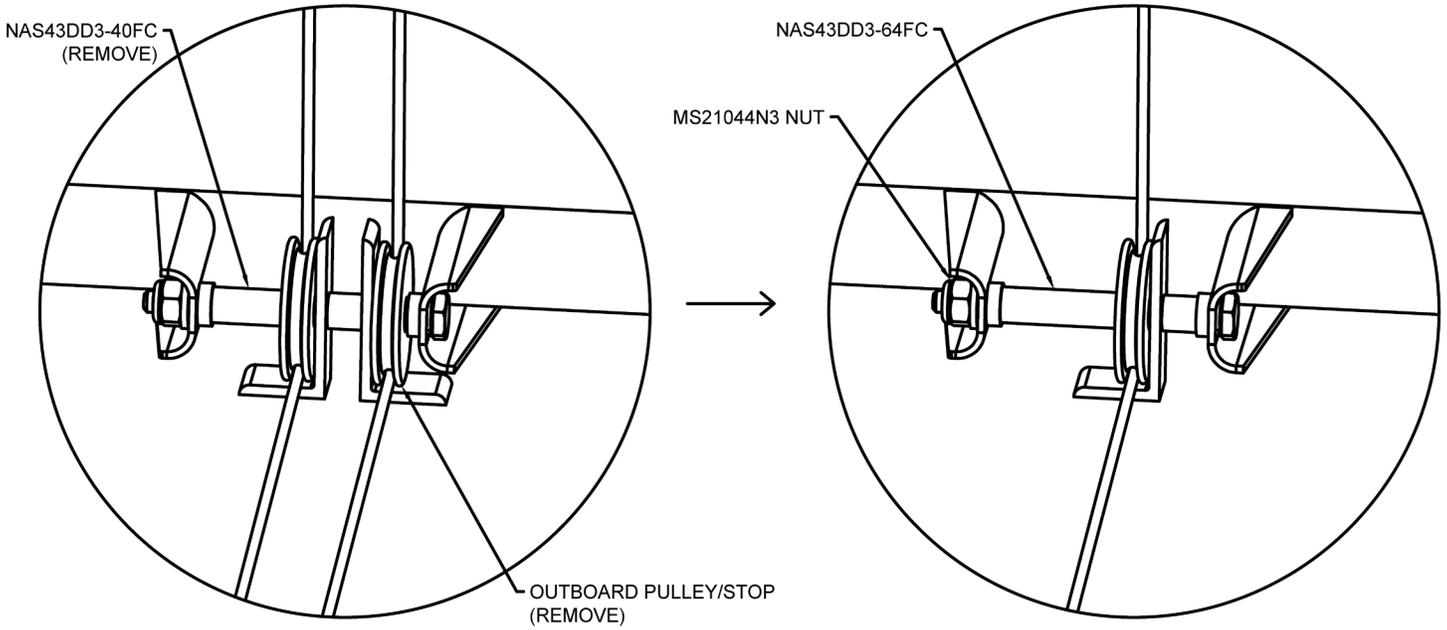
**FIGURE 10: BRACE INSTALL (LH SHOWN, RH SIMILAR)**

13. Install guide pulley at STA 67.88 crosspiece. Refer to Figure 11.
  - a. Assemble pulley and fasten to plate
  - b. Locate pulley and plate at midspan of crosspiece. Align with cable or string so that cable will run straight with no fwd-aft deflection at this location, then clamp in position.
  - c. As needed, bend plate to adjust vertical pulley position so that cable rides on pulley wheel when under tension. Re-clamp.
  - d. Match-drill crosspiece for #10 hardware.
  - e. Fasten with hardware shown.



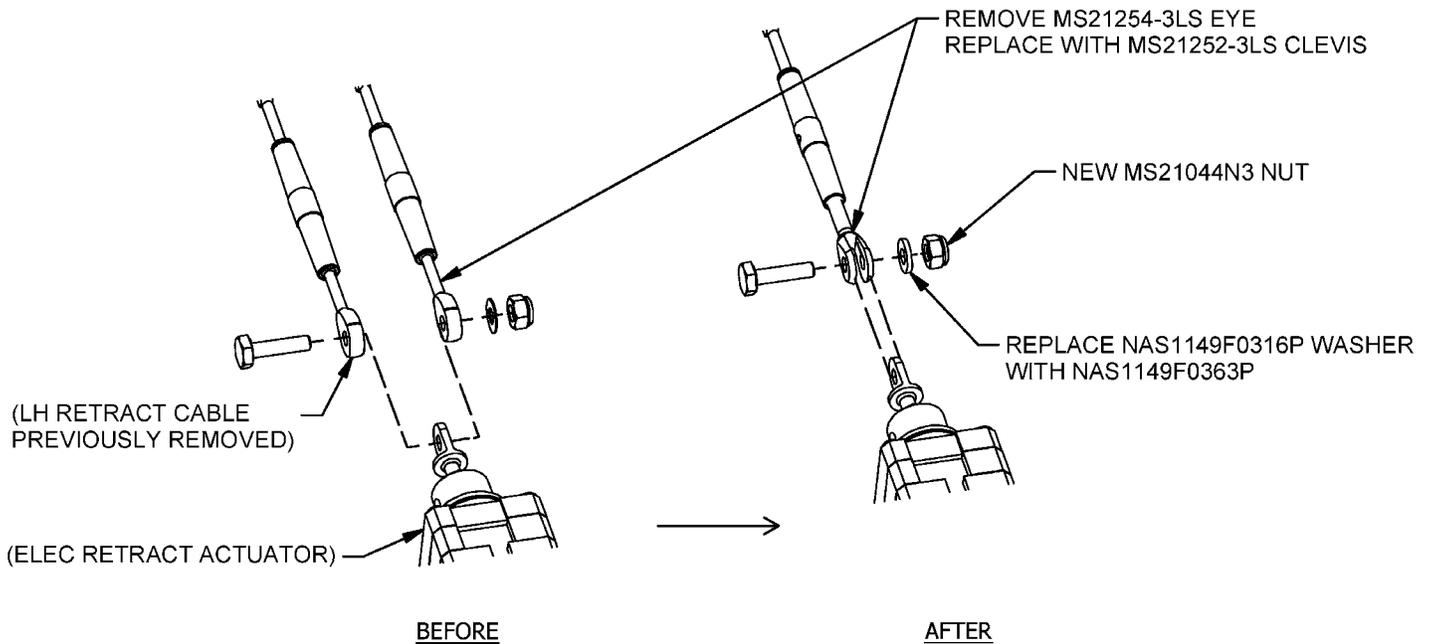
**FIGURE 11: GUIDE PULLEY INSTALLATION**

14. If the aircraft has a manual water rudder retract system, there is a retract pulley assembly at STA 102.56. Remove the outboard pulley/pulley stop, move the small spacer and the other pulley stop/pulley outboard, and replace spacer NAS43DD3-40FC with spacer NAS43DD3-64FC.



**FIGURE 12A: MANUAL RETRACT CABLE PULLEY ASSEMBLY**

15. If the aircraft has an electric water rudder retract system, replace the MS21254-3LS eye end at the end of the retract cable with the MS21252-3LS clevis-rod end in the service letter kit.



**FIGURE 12B: ELECTRIC RETRACT**

16. Reroute cables. Refer to figure 13 for before/after schematics.

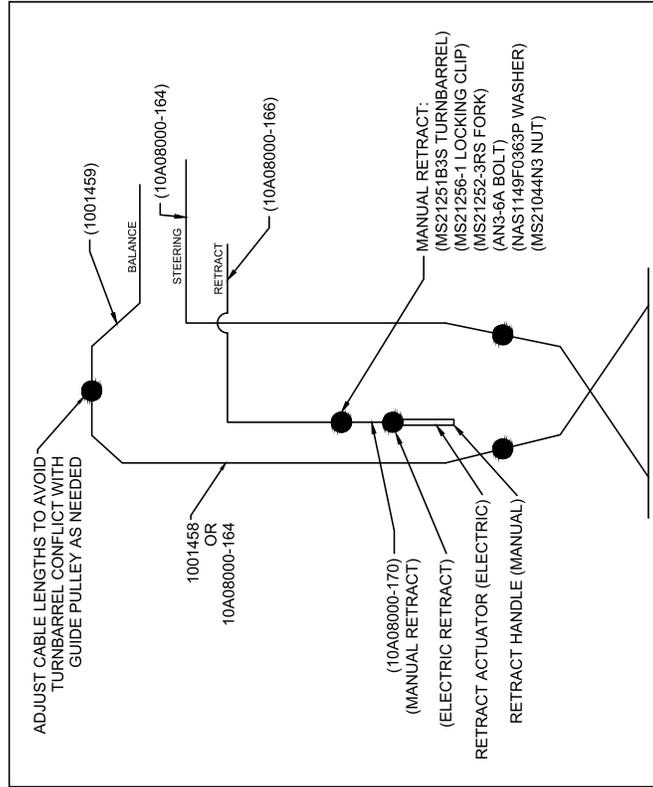
**Notes:**

- LH retract cable 10A08000-166 was removed in step 3
- Route and adjust cable assemblies with flaps in up position.
- If swaging equipment is unavailable, review Wipaire SRM 1008274 section 7.2 for alternate options.
  - a. Steering cable 10A08000-164 and balance cable 1001459 must be joined such that the cable runs from the rudder horn, through the existing fuselage pulleys, through the newly assembled/arranged pulleys (steps 9, 10, 11b, 13), and down the pylon to the RH water rudder. Installer may EITHER:
    - i. Remove steering cable 10A08000-164, route balance cable 1001458 to the turnbarrel in the aft fuselage, cut cable to the correct length, and add a new terminal stud to be reassembled with the turnbarrel, OR
    - ii. Remove balance cable 1001458, route steering cable 10A08000-164 to the turnbarrel at STA 67.88, cut cable to the correct length, and add a new terminal stud to be reassembled with the turnbarrel.

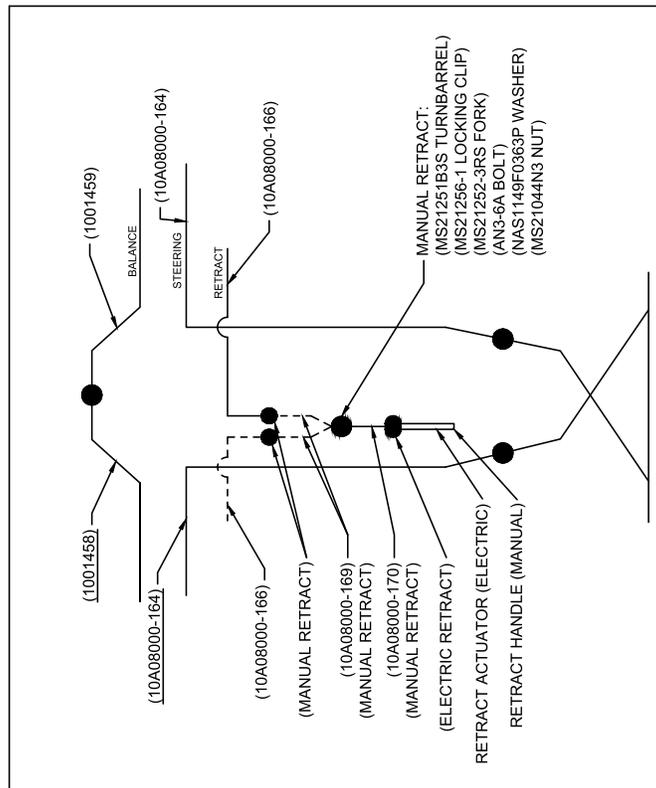
**Note:** Both of these options will result in the steering cable run having 2 separate turnbarrel locations. This cable configuration can be modified at the installer's discretion provided at least one turnbarrel assembly is included in the cable run for adjustment purposes.

- b. **MANUAL RETRACT ONLY:** With 10A08000-169 cables removed in Step 3, install new RH retract cable P/N 10A08000-166 in order to reach the cable extending from the retract handle (cable P/N 10A08000-170).
- c. Set steering cable tension to 10-15 lbs.
- d. **ELECTRIC RETRACT ONLY:** After routing and connecting all cables, push the "W.R. RETRACT" circuit breaker back in to restore water rudder retract function.

SINGLE RUDDER SCHEMATIC (AFTER)



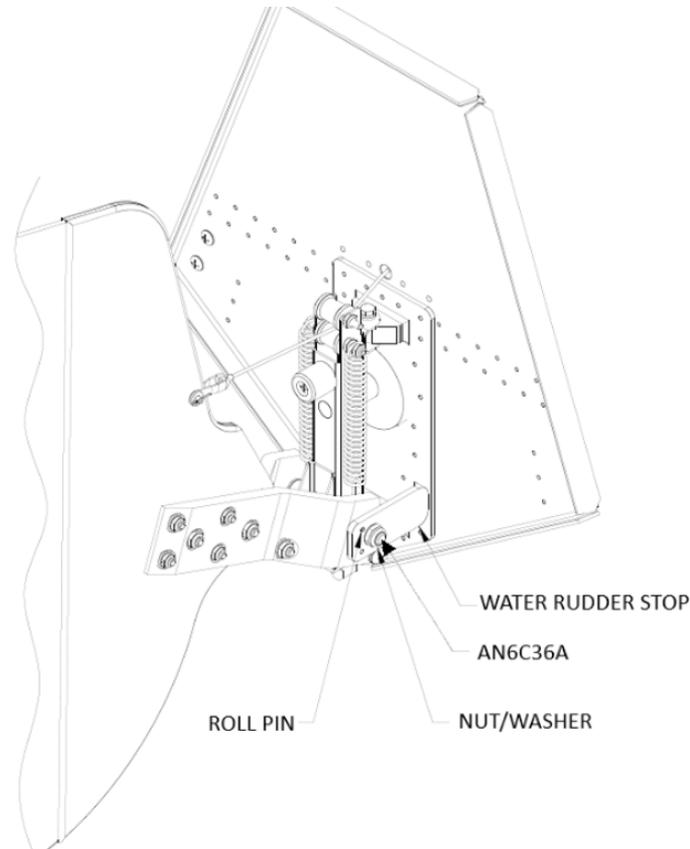
TWO RUDDER SCHEMATIC (BEFORE)



● = TURNBARREL LOCATION

FIGURE 13: WATER RUDDER CABLE SCHEMATIC, BEFORE/AFTER

17. The water rudder stop from the LH water rudder needs to be attached to the opposite side of the RH water rudder such that there is a stop on both sides of the RH water rudder. Position water rudder stop square to bulkhead with water rudder in the up position. Match drill 0.125 hole from water rudder stop through water rudder arm. New roll pin and longer bolt (AN6C36A) are included in this service kit. See Figure 14.



**FIGURE 14: WATER RUDDER STOP**

## **Aircraft Closing & Return to Service**

Upon completion of inspection, enter information in Aircraft Logbook for completion of Wipaire Service Letter 269.