SERVICE LETTER 197

8750 PYLON CRACKING REPAIR

Aircraft Makes/Model(s):	Float Model(s):	Compliance: Optional	By: MAB
208	8750	Part Number: 1011043	Approved: SDW
208B	0.00	Date: 3/25/2020	Revision: B

LOG OF REVISIONS

Revision	Description	
А	Initial release	6/11/2019
В	Updated approximate shop hours.	

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



EFFECTIVITY:

This service letter applies to Textron Aviation models 208 and 208B with Wipline 8750 Floats installed per STC SA1311GL.

COMPLIANCE:

Optional compliance

BACKGROUND:

Some pylons have cracking due to wind resistance. This service letter provides instructions to strengthen specific areas of the float pylons.

NOTE: It is highly recommended to perform the repairs in this service letter in conjunction with Service Letter 169 and Service Letter 177 to maximize pylon strength performance and reduce the risk of further cracking.

COMPLIANCE METHOD:

Install provided parts as shown in the Work Instruction section of this service letter.

APPROXIMATE SHOP HOURS:

Repairing the pylons will take approximately 20 labor hours per float.

WARRANTY INFORMATION:

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

TECHNICAL DATA:

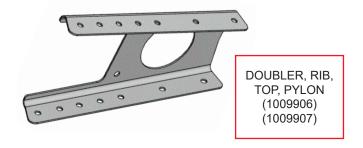
Copies of this service letter, associated service kit (if applicable), float service manual, and float parts manual are available at www.wipaire.com.



ITEMS PROVIDED IN SERVICE KIT 1011043-01 (LEFT AND RIGHT FLOAT)

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1005424	RIB, LH PYLON TRAILING EDGE TOP
2	1	1005425	RIB, RH PYLON TRAILING EDGE TOP
3	1	1009906	DOUBLER, RIB, TOP, PYLON 8750
4	1	1009907	DOUBLER, RIB, TOP, PYLON 8750
5	2	1009928	DOUBLER, OUTBOARD, SKIN, FAIRING, PYLON, 8750
6	2	1009929	DOUBLER, SKIN, INBOARD, FAIRING, PYLON, 8750
7	1	1009934	DOUBLER, SKIN, CENTER INBOARD, PYLON, 8750
8	1	1009935	DOUBLER, SKIN, CENTER INBOARD, PYLON, 8750
9	1	1009947	ANGLE, CORNER, STIFFENER, PYLON, LH, 8750
10	1	1009948	ANGLE, CORNER, STIFFENER, PYLON, RH, 8750

PART IMAGE EXAMPLES

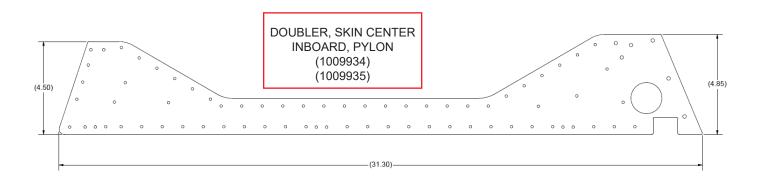


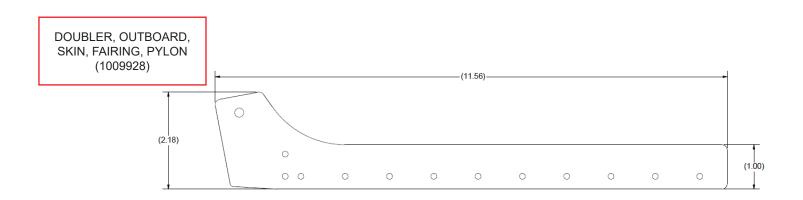
RIB, PYLON, TRAILING EDGE TOP (1005424) LH (1005425) RH

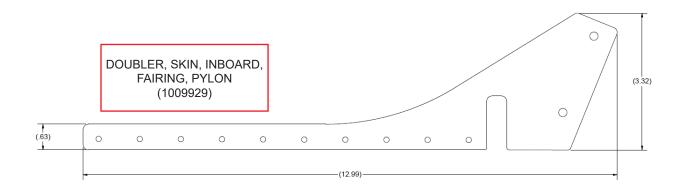






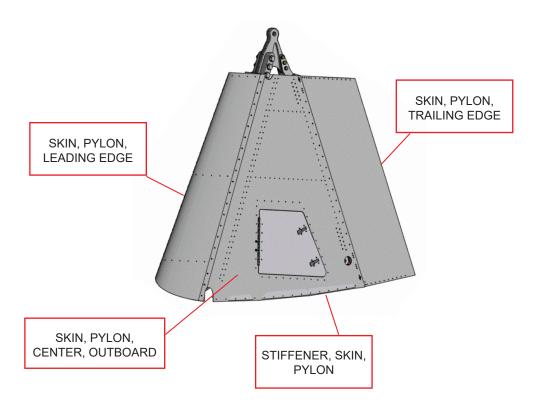








ASSEMBLED FLOAT PYLON



PYLON REINFORCEMENT OPTIONS

There are three ways to perform the work for this service letter. The recommended option is to remove the entire pylon from the float and then add in the provided parts. To do this, review the section **Hoisting Aircraft for Pylon Removal**. Then perform the work in the section **Pylon Reinforcement**.

If a hoist and support crew are not available, then rivets can be put in backwards while the pylon is still attached to the float and plane. For this method, skip to the section **Pylon Reinforcement**. Be advised you will not be able to install the angle corner stiffener due to the pylon still being attached to the float.

If a hoist and support crew are not available, and a customer does not want to shoot the rivets backwards into a pylon, then structural screws, nuts, and bolts can be used in place of the rivets. For this method, skip to the section **Pylon Reinforcement** and replace the rivets with the desired hardware. Be advised you will not be able to install the angle corner stiffener due to the pylon still being attached to the float.

WORK INSTRUCTION

HOISTING AIRCRAFT FOR PYLON REMOVAL

1. Defuel aircraft prior to repairs to help keep aircraft balanced.

Note: Alternatively, aircraft can be completely fueled up to maintain balance; however, this will make the aircraft significantly heavier and may make repairs more difficult.

2. It is highly recommended to remove the tail cone access cover and place an 80 lbs ballast in the tail cone access area to balance the plane longitudinally. This will help prevent the tail lifting vertically in the hangar due to the weight of the engine.

Note: This is especially important if the hangar the plane is stored in is not very tall in case the tail lifts up into the air vertically.



- 3. Remove gear fairing and belly plate if needed.
- 4. Remove the leading edge and trailing edge pylon fairing skins.



- 5. Cut all zip ties on the leading edge to unsecure the hydraulic and electrical running along the pylon. Note the position of the cabling on the trailing edge of the pylon and remove pulleys. May need to loosen the cables to do this step.
- 6. Make sure the fuel is off and the fuel quantity is even.
- 7. Connect the lifting bar to the hoist and position aircraft underneath.
- 8. Remove wing gap strips.
- 9. Inspect aircraft lifting rings for proper assembly and installation before connecting the lifting bar to the aircraft.
- 10. Attach ropes and ballast to tie-down rings as required to keep aircraft level while lifting.
- 11. Remove the following items from the aircraft: rear cargo struts and step assembly, bolts from front step struts (forward strut stays attached to aircraft).
- 12. Relieve cable tensions for steering, balance, and retract cables as required. Remove the pulley clusters to remove the pylon.
- 13. Secure the aircraft so it remains level and block the tires on the float. Secure the floats with a stand or jack under float chines on both sides.



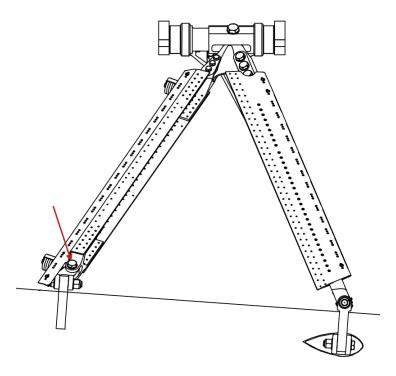


14. Note the tension of the fly wire and length prior to removal. Loosen the aft fly wire so it can be removed by removing the clevis pin at the spreader bar. Support the fly wire.



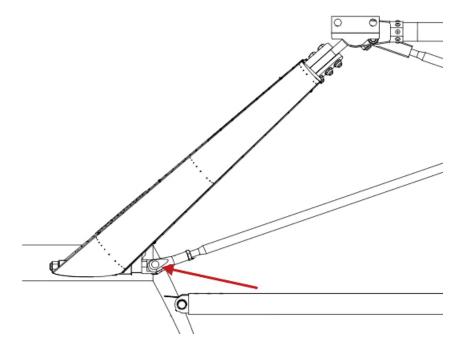
CLEVIS PIN

- 15. Assemble support crew, recommended six crew members.
- 16. Remove the two main gear saddles on affected pylon.
- 17. Lift aircraft enough to remove pylon.
- 18. Remove pylon 10" eye bolt and aft pylon attach bolt.
- 19. Remove the aft pylon bolt of the float top deck (see figures next page).





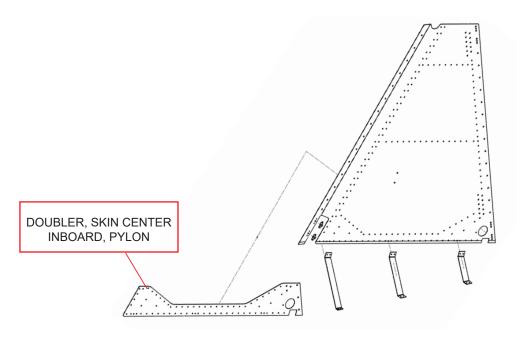
20. Remove the aft bolt that connects the pylon to the main pylon fitting.



21. Remove the pylon and support the upper assembly.

PYLON REINFORCEMENT

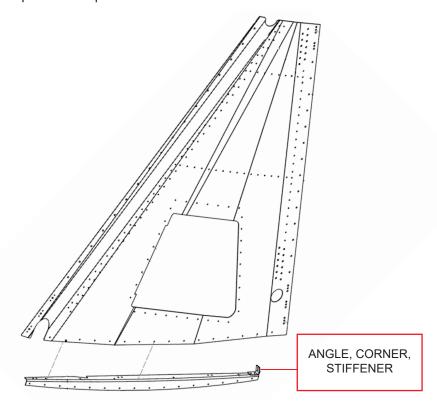
- 1. Locate the respective doubler on the inboard side of the pylon and transfer holes from the doubler to pylon skin.
- 2. Remove doubler, clean, and deburr pylon.
- 3. Wet install doubler with PR-1422 or equivalent and MS20470AD rivets as per original (prep and tape doubler to prevent sealant stain on pylon as desired).



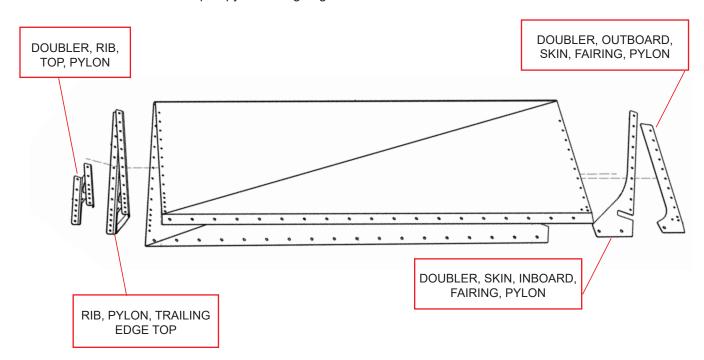


4. Install angle corner stiffener inside of the aft pylon.

Note: Pylon must be removed to accomplish this step.



- 5. With trailing edge skin already removed, drill out existing rivets for the lower rib. Install fairing doublers between fairing skin and rib with MS20470AD as per original.
- 6. Remove upper rib and discard rib.
- 7. Install rib and doubler onto the top of pylon trailing edge skin.



8. Touch up paint as needed.



PYLON REINSTALL ON FLOAT

- 1. Install pylon on float. Put the 10" eye bolt and the aft pylon bolt that was previously removed back in place using Tef-Gel. The aft bolt can be torqued to 67-83 ft/lbs. Ensure 10" eye bolt is in precisely the correct clock position for the flywire before tightening. Tighten nut to standard torque of 200 ft/lbs while supporting eye.
- 2. Connect the flywire to the eye bolt with new cotter pin and tension flywire to previous noted tension and length.
- 3. Assemble support crew, recommended six crew members.
- 4. Lube saddles on aircraft with Tef-Gel or equivalent.
- 5. Lower the aircraft onto pylon gear journal fitting.
- 6. Install the two saddle caps and torque the saddle bolts to 75 ft/lbs.
- 7. Reinstall cable pulleys and position cables as previously installed.
- 8. Route and rig the steering cables 30 lbs +/- 5 lbs and water rudder retract cables should be rigged such that the top of the rudder blade is approximately 1 inch from the rudder stop on the rudder post in the up position and the cables are just slack in the down position.
- 9. Verify new safety clips installed on affected turn barrels.
- 10. Install the rear pylon fairing.
- 11. Secure hydraulic lines to forward pylon and install forward fairing.
- 12. Install fairings for main gear.
- 13. Remove any ballast weight from tail and on wings and then install tail inspection cover.
- 14. Remove chine supports (jacks or stands).
- 15. Remove aircraft from hoist and install gap strips on wings.
- 16. Upon completion of inspection, enter information in Aircraft Logbook for completion of this Wipaire service letter.

ADDITIONAL VIEW OF PYLON REINFORCEMENT

