



# SERVICE BULLETIN

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229-263-4205

CATEGORY 2

This Service Bulletin contains information pertaining to a threat to the continued safe operation of an aircraft or to the safety of persons or property on the ground unless some specific action is taken by the aircraft owner.

**SB-193**

ATA 5711

DATE: November 5, 2010

SUBJECT: AFT WING SPAR CORROSION

MODEL / SERIALS AFFECTED: AG-5B All

TIME OF COMPLIANCE: Within the next 100 hours, time in service or at the next scheduled inspection, whichever occurs first.

GENERAL:

AG-5B aircraft have a rub strip P/N 5203021-7 attached to the rear spar of the wing to limit bowing of the flap while under flight loads. It has been discovered through routine maintenance that several AG-5B aircraft have damage to the rear spar caused by exfoliation corrosion under the flap rub strip. This corrosion is believed to be a result of dissimilar metals of the rear spar and the rub strip and, moisture trapped between the two materials.

This damage, left undetected, could result in a reduction in structural integrity of the wing which may result in diminished flight control authority. The wing may also develop a fuel tank leak.

INSPECTION:

Inspect both wings as follows:

1. Remove the wing tip, aileron and flap. (See MM Chapter 27)
2. Drill out the two rivets that secure the Flap Rub Strip to the rear spar and remove the rub strip. (See Figure 1)



NOTE: Remove paint as necessary to inspect the affected area

3. Inspect the lower surface of the upper spar flange for evidence of corrosion such as a white, flakey ash in the area where the rub strip was attached and at a minimum, one inch from each side of the rub strip location. (See Figure 2)
4. Inspect the upper wing skin one inch forward and one inch from each side of the rub strip location for corrosion and bond line separation from the rear spar upper flange using the "Tap Test Method". (Ref. MM Chapter 5)
5. Inspect the rivet holes for corrosion.

#### REQUIRED ACTION

- A. If no corrosion or minor corrosion (less than .005" deep) is found and there has been no wing skin bond line separation from the rear spar, accomplish the following:
  1. Remove all corrosion and clean the affected area of the wing.
  2. Clean and inspect the flap rub strip and replace if any corrosion is found.
  3. Prime the spar (including the inside of the rivet holes) and the mating surface of the rub strip with zinc chromate and allow to dry.
  4. Apply Polysulfide Sealant (i.e. PR1422-B2 or equivalent) to the mating surface and reinstall the rub strip. Install rivets wet with sealant. Fillet seal around the edges of the rub strip and paint as required.
  5. Reinstall the flap, aileron and wing tip in accordance with the Maintenance Manual, Chapter 27.
  6. Make an appropriate entry in aircraft log book.
  7. No further action is required.
  
- B. If corrosion is found to be in excess of .005" deep and /or if there is wing skin bond line separation from the rear spar accomplish the following:
  1. Comply with the instructions in Service Kit No. 157 "AFT WING SPAR CORROSION REPAIR".
  2. Make the appropriate aircraft log book entries.
  3. No further action is required.

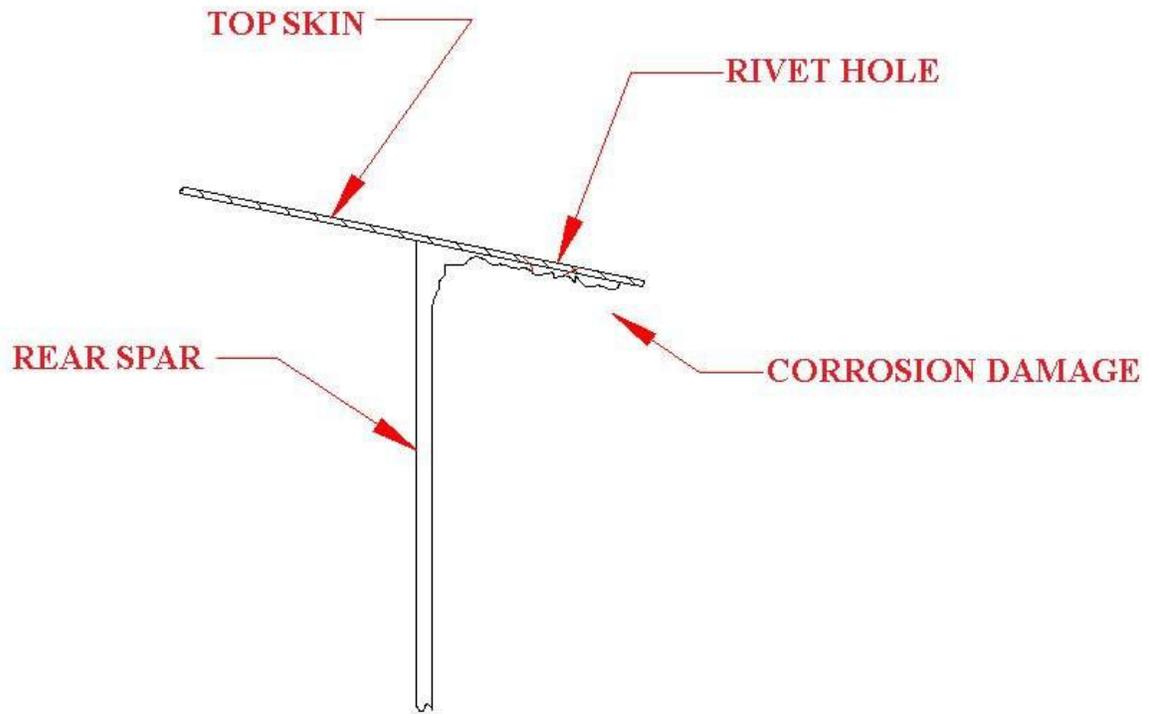


## **RUB STRIP LOCATION**



**FIGURE 1**

**Normal rub strip**



## FIGURE 2

**RUB STRIP AND RIVETS REMOVED**

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