



A Mahindra Aerospace Company

**SB-GA8-2008-47**

**Issue 4**

**MANDATORY**

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## Service Bulletin

### Subject:

Fuselage Skin Wear at Stabiliser Lower Fairing.

### Applicability:

All GA8 and GA8-TC 320 model aircraft to S/No GA8-10-155 inclusive.

### Amendments:

Parts required altered. Parts list amended. Documentation, Continued Airworthiness and Compliance Notice sections added.

### Background:

Reports received from several operators indicate that a possibility exists where the gap strips attached to the lower side of the stabiliser can wear or chafe against the fuselage skin as the tailplane moves up and down during normal operation. Wear in this area can remain undetected during normal maintenance inspections due to the permanently attached tailplane gap strip covers. If this condition is left uncorrected severe wear to the fuselage skin can occur to the extent that repairs are required.

This Service Bulletin documents the procedure to remove the gap strip covers and inspect the affected areas then carry out modifications to make the covers removable and to install anti-chafe strips.

### Compliance:

Compliance with this Service Bulletin is Mandatory and is to be incorporated at the next scheduled inspection.

### Weight and Balance:

Negligible effect on weight and balance.

### Approval:

The technical aspects of this Service Bulletin have been approved under a CASA Authorisation. GippsAero Reference GAE11-1375

## Parts:

The following parts are required for the procedure outlined by this Service Bulletin:

Item	Part Number	Description	Qty
1.	GA8-538021-335	WEAR STRIP	2
2.	412G00004	ANCHORNUT, TINNERMAN, 2-LUG, COUNTERSUNK (A6195-6Z1D)	12
3.	NAS1097AD3-3	RIVET, CSK, SHEAR HD	16
4.	NAS1097AD3-4	RIVET, CSK, SHEAR HD	8
5.	GA8-538022-017	COVER LH	1
6.	GA8-538022-018	COVER RH	1
7.	418G00013	SCREW, COMMERCIAL 6 X 1/2 PTA	12
8.	NAS1515H06L	WASHER, NYLON	12
9.	MS20426AD3-4	RIVET, SOLID, CSK	8
10	164G00002	SEALANT, AMS-S-8802, TYP I, CL B-2 (PR1422B2)	A/R
11	310G00074	2024T3-ALSHT-QQA250/5-0.025	A/R

## Parts Availability:

Parts can be obtained directly from GippsAero.

Tel.: +61 (0) 3 51 721208

Fax: +61 (0) 3 51 721237

Email: [spares@gippsaero.com](mailto:spares@gippsaero.com)

## Labour:

Approximately 2.0 hours per aircraft should be allocated for completing the work detailed in this service bulletin. An additional 4.0 hours labour should be allocated should fabrication and installation of the repair doubler be required.

## Warranty:

GippsAero factory participation is limited to the supply of parts, including freight, at the owner's expense.

## Instructions:

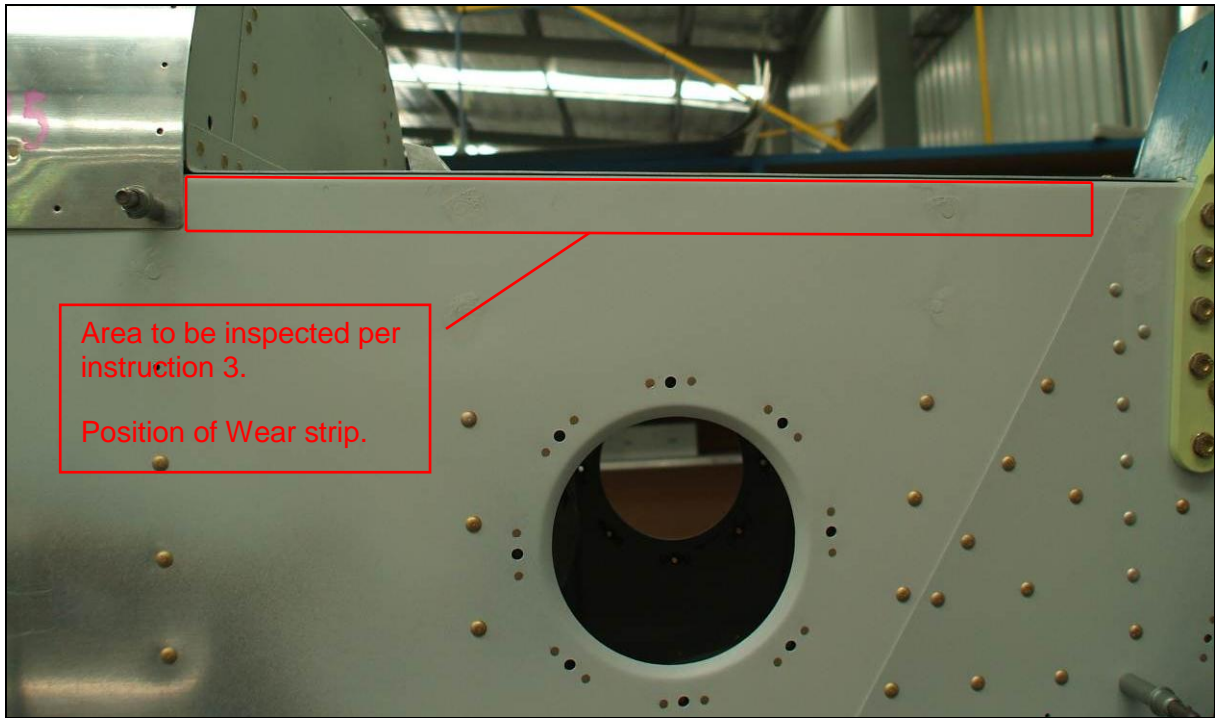
1. Move the stabiliser trim to the full nose down position (leading edge up); remove the tailplane gap strips, P/Ns GA8-538022-013 (L/H) and GA8-538022-014 (R/H), and the two round inspection panels directly below these. Remove the rear fuselage access panel forward of the ventral fin.

2. Drill out the six 1/8-inch rivets at each gap strip cover; remove and discard the covers. A sharp blade may be used to carefully cut the sealant at the edge of the covers.

**NOTE:**

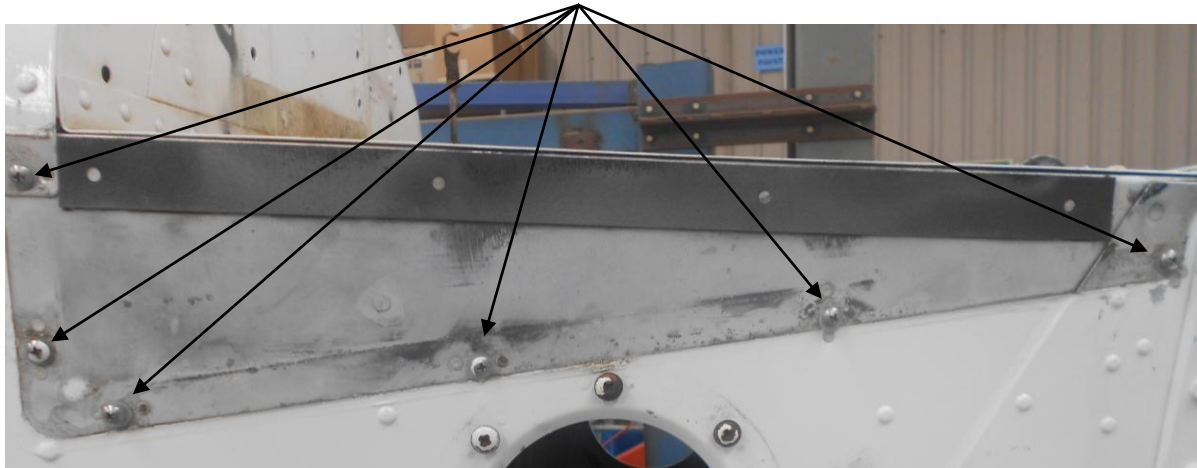
*Ensure that the underlying skin is not scored.*

3. Clean and inspect the area shown in Figure 1 for any signs of wear. If the fuselage skin shows signs of wear other than removal of the paint finish or scuffing to the surface of the metal, or contains a crack that is no greater than 6" in length, implement the Repair Scheme defined below. If damage exceeds this amount contact GippsAero Pty. Ltd. with full details.
4. If no wear is present, position the two wear strips, GA8-538021-335, over the area shown in Figure 1 (LH side shown) and retain in position with adhesive tape. Mark the position of the holes then drill to 3/32-inch, clean and de-burr these holes. Prepare the area using a 240 Grade abrasive cloth then clean with a suitable solvent. Remove the protective strip from the back of each wear strip and apply a thin coating of 164G00002, (Pro-Seal 34 or Hysol EA9394 may be used as alternatives) to the back of each strip. Attach the strips using the MS20426AD3-4 countersunk rivets supplied. Ensure the strips are pressed firmly against the skin and that the wear strip remains flat. Remove any excess sealant. Adhesive tape or appropriate clamps may be used to hold the strips firmly in position until the sealant has properly cured.
5. Install six 412G00004 anchor nuts with NAS1097 rivets to each side of the fuselage (Figure 2 & 3) and install the new covers, left - GA8-538022-017 and right - GA8-538022-018 using the 418G00013 Screws and NAS1515H06L washers.
6. With the stabiliser in the full nose down position (leading edge up) install the tailplane gap strips, wind the stabiliser to the full nose up position (leading edge down) and ensure that the strips are centred in each slot and that no binding or loading up of the strip occurs.
7. If the tailplane gap strips do not align with the centre of each slot remove them and elongate the attachment holes as required to allow enough sideways movement for correct centring of the strips when the stabiliser is in the full nose up position (leading edge down).
8. Install all remaining access panels.

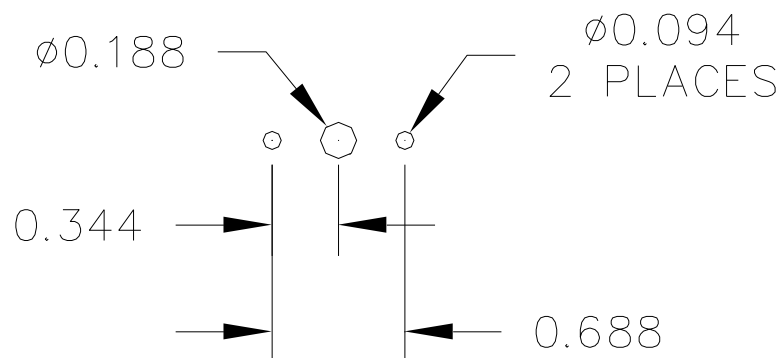


**Figure 1: Wear strip location**

Tinnerman Plate positions



**Figure 2: Tinnerman Plate positions**



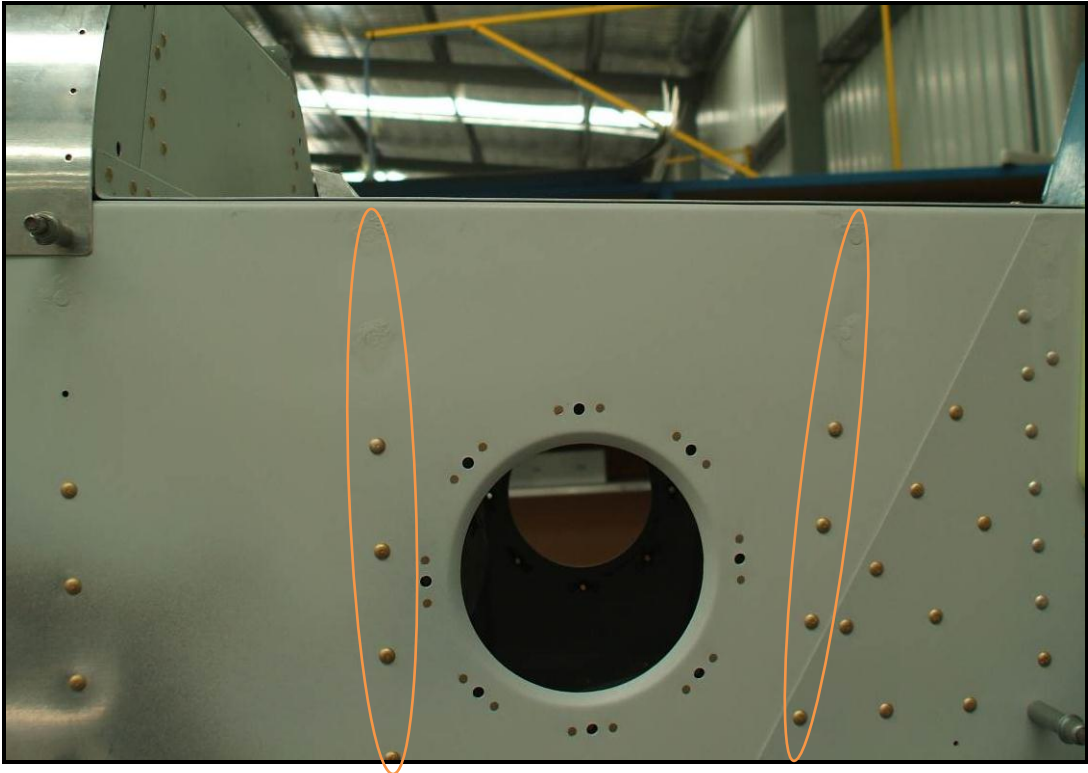
**Figure 3: Anchor nut drilling detail**

## Repair Scheme:

- A. If cracking exists, stop drill crack tip at both ends with 3/32" inch dia drill and deburr to prevent further crack propagation.
- B. Manufacture a repair doubler from 0.025 inch thick Alclad 2024-T3 sheet. Cut out a 15.25" x 3.6" flat pattern; bend through 90 degrees to form an L-section with equal flange lengths. Deburr and remove all sharp edges.
- C. Manufacture a 9" x 0.75" flat packer and a 7" x 0.75" flat packer from 0.025 inch thick Alclad 2024-T3 sheet. Deburr and remove all sharp edges.
- D. Drill out rivets that attach the fwd and aft inspection hole stiffeners adjacent to the cracked/worn area (Ref Figure A, B, C).
  - a. GA8-538021-221 FORWARD INSPECTION HOLE STIFFENER
  - b. GA8-538021-223 AFT INSPECTION HOLE STIFFENER

(Note: L/H part no's shown; R/H part no's are -222 and -224 respectively)

- E. Drill out 16 x domed rivets on the top skin as specified in Figure D (L/H side shown).
- F. Drill holes in the side panel with a 1/8 inch drill using the hole pattern as specified in Figure E. The four holes marked for the wear strip installation must be drilled using a 3/32 inch drill. Countersink the 1/8 inch holes by dimpling; the four 3/32 inch holes should not have any countersink.
- G. Install repair doubler on the inside of the tailcone ensuring it fully covers the damaged area and is held firmly in place. Back-drill through the doubler using the holes in the top and side skins as a guide. Remove the doubler, deburr all holes then prime as required.
- H. Rivet doubler to top skin using 1/8" domed rivets (MS20470AD-4) as required. Rivet length to be determined on assembly.
- I. Rivet side flange of doubler in place using 1/8" countersunk rivets (MS20426AD-4) as required. Rivet length to be determined on assembly.
- J. Clean outer surface, prime and repaint as required.
- K. Install wear strip along top edge following the steps outlined in Step 4 of Service Bulletin instructions (GA8-538021-335), riveting through the skin and doubler in the four holes as specified.
- L. Re-install forward and aft inspection hole stiffeners with packers underneath to avoid clash with doubler. Rivet length to be determined on assembly.
- M. Complete remaining steps in Service Bulletin from Step 5 onwards.



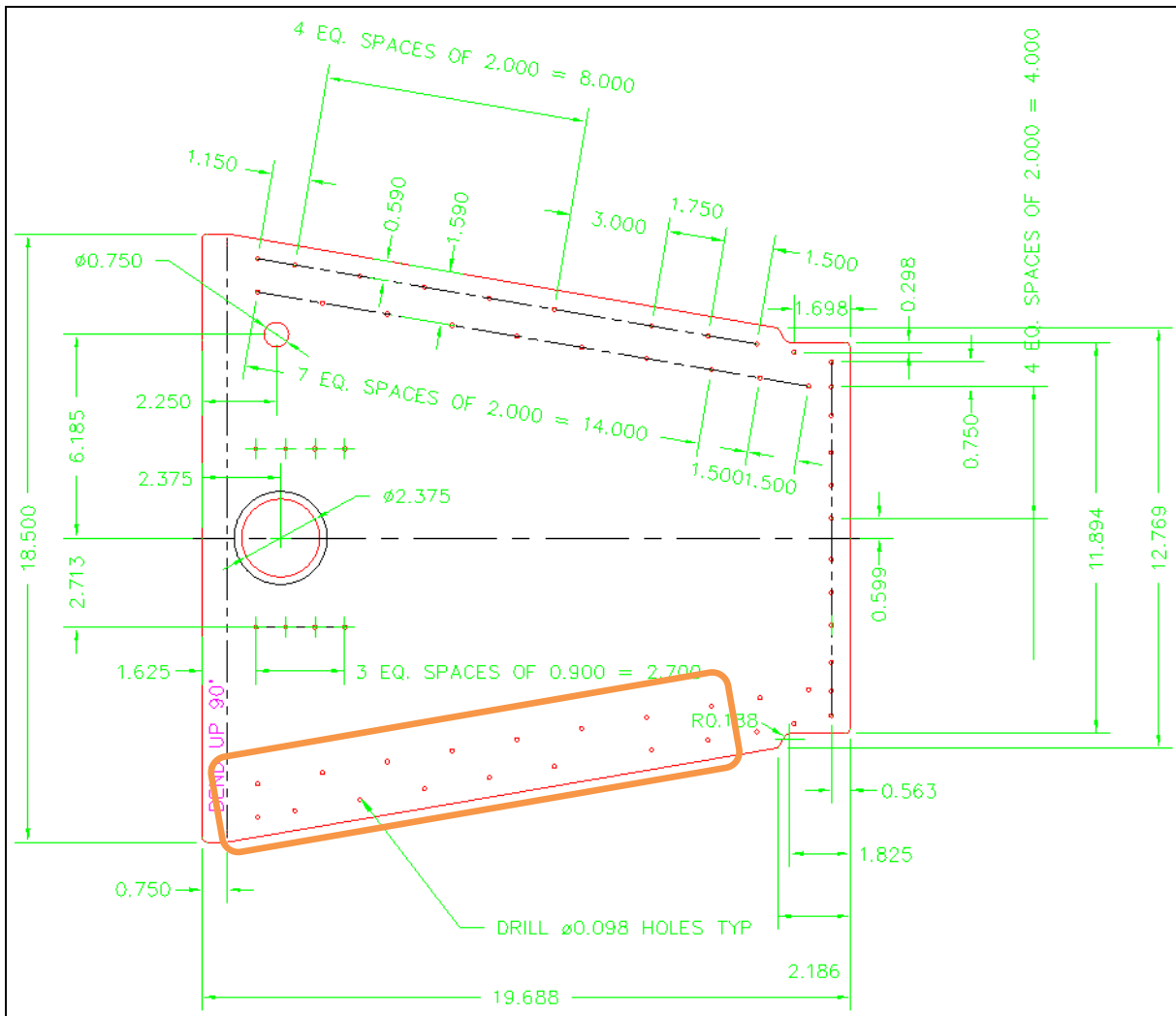
**Figure A:** Inspection hole stiffener rivets



**Figure B:** Fwd stiffener

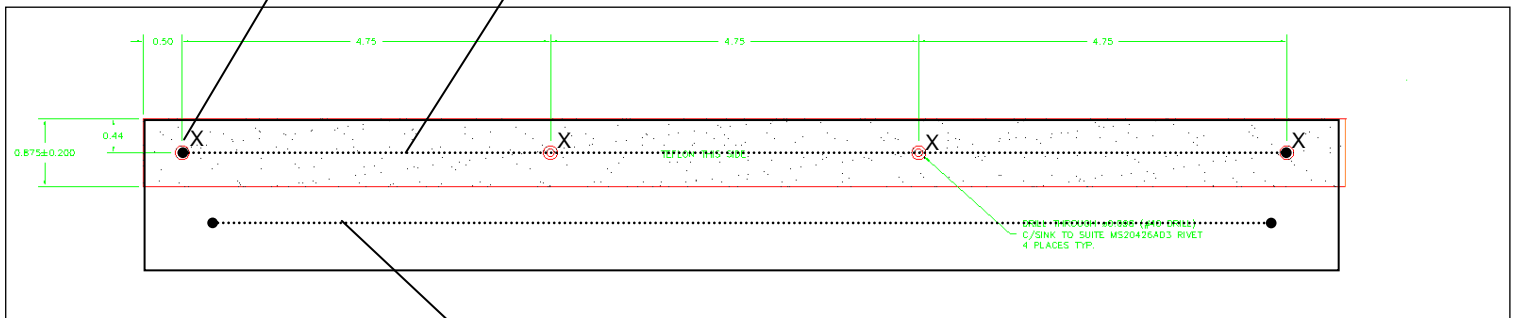


**Figure C:** Aft stiffener



**Figure D: Hole pattern – top skin**

DRILL 4 HOLES MARKED "X" AS 3/32" DIA. DRILL ALL OTHER HOLES AS 1/8"  
 10 EQ. SPACES OF 1.583" = 14.25"



9 EQ. SPACES OF 1.583" = 12.7"

**Figure E: Hole pattern – side**

**Documentation:**

Update aircraft log book to reflect incorporation of this Service Bulletin.

**Continuing Airworthiness:**

There are no additional continuing airworthiness requirements as part of the implementation of this Service Bulletin.

**Compliance Notice:**

Complete the Document Compliance Notice and return to GippsAero by mail, fax or email.



## DOCUMENT COMPLIANCE NOTICE



A Mahindra Aerospace Company

Document:

**SB-GA8-2008-47**

**Issue 4**

Aircraft Serial Number: GA8-\_\_\_\_\_

Service Bulletin SB-GA8-2008-47 Issue 4 has been incorporated in the above aircraft.

Date of Incorporation: \_\_\_\_\_

\_\_\_\_\_  
Signed

Print Name: \_\_\_\_\_

Please post, fax or email this compliance notice to:

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