

## SERVICE BULLETIN

### No. SB-300-2-97

**Extra considers compliance mandatory**

**Subject:** Fuselage structure / tail spring support

**Aircraft affected:** Following models and SN  
EA-300/L: S/N 01-170, 172, 173 and  
1171, 1174-1299

EA-300/200: S/N 01-31 and 1032-1043

Aircraft that comply with Part II of issue (B) of this service bulletin are not affected.

**Purpose:** The combination of a redesigned tail spring support, a stiffer tail spring and rough field operations has led to cracks in the tail spring support mounting base.

Cracks have been reported even for airplanes that comply with PART II of the previous issue (A) of this service bulletin.

This issue (C) of the service bulletin provides instructions for recurring inspection and modification in the area of the tail spring support.

**Approval:** The technical content of this document is approved under the authority of DOA Nr. EASA.21J.073.

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### COMPLIANCE TIME

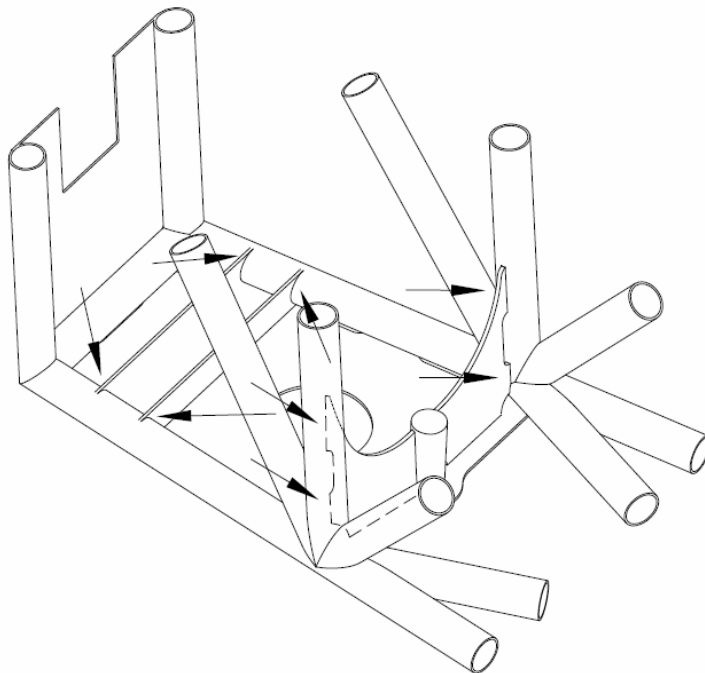
First inspection as described in PART I prior to next flight. Recurring inspection as part of the 50h inspection program only until PART II of this Service Bulletin has been complied with.

In case the inspection described in PART I reveals cracks, PART II needs to be complied with prior to next flight.

## PART I VISUAL INSPECTION

**Note:** Alterations or repair of the aircraft must be accomplished by licensed personnel only. A repetitive inspection is required at given compliance time.

- Remove elevator control inspection window
- Visual inspection of tail spring mounting along welds to fuselage tubing. Cracks have been reported at the spots marked in figure 1. Investigate these areas carefully. To assist the visual inspection it is helpful to use a torchlight and a magnifying glass.
- In case cracks are found proceed with the instructions of PART II.
- In case no cracks are found reinstall elevator control inspection window and make appropriate entry of compliance in aircraft logbook.

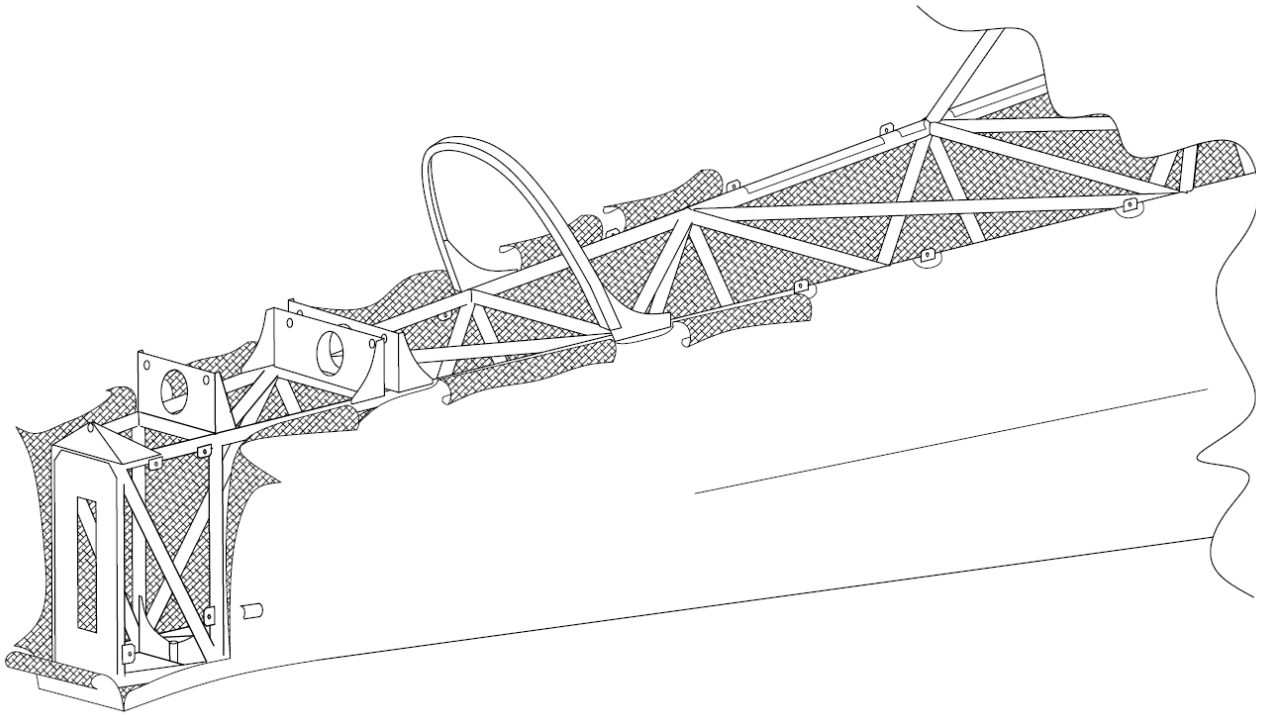


*Figure 1: Possible crack locations in the area of tail gear spring attachment (retrofit plates of SB-300-2-97 issue A installed)*

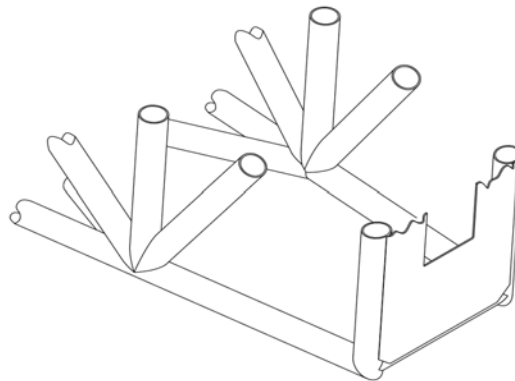
## PART II RETROFIT

**Note:** Alterations or repair of the aircraft must be accomplished by licensed personnel only. Refer to AC 43.13-1B and Chapter 51-70-05 "Structural Repair of Steel Components" of the Service Manual. TIG welding is required, use appropriate welding rod.

- Remove elevator control inspection window.
- Remove tail fairing, rudder, vertical and horizontal stabilizer, according Chapter 27 and 55 of the Service Manual.
- Remove tail spring assembly, according Chapter 32 of the Service Manual.
- Disconnect battery ground wire and engine ground wire to firewall.
- Peel off fabric from upper L/H and R/H longeron, from rear facing fuselage surface and R/H lower longeron in the area of the inspection window (refer to figure 2 for detailed sketch). Do not use sharp objects that could damage the fabric while peeling it off. Fold the fabric far enough forward to have sufficient access to the area for welding. Make sure to work gently in order not to introduce cracks in the fabric paint coat finish.
- Inspect tail spring mounting base for previously unnoticed cracks, especially at the spots marked in figure 1.
- Remove paint from fuselage tubes and tail spring mounting plate for welding in cracked areas and installation of the retrofit plates.
- Cut out tail spring mounting plate including front and rear stiffener (figure 3 shows detail of rear truss after cutting). Proceed with caution. Avoid damaging any truss tubes (except those tubes that are replaced).
- Repair any cracks found. Refer to Chapter 51-70-05 "Structural Repair of Steel Components" of the Service Manual and figure 4.
- Weld retrofit plates in place, refer to figure 5 for correct position of plates and welds.
- Refinish fuselage paint coat, according Chapter 51-70-07 of the Service Manual.
- Reattach the fabric using the standard fabric glue. Follow procedures as given in the Ceconite® 102 manual. Make sure the fabric is pulled tight during the reattachment. Do not attempt to restore fabric tension by heating the already painted fabric. If necessary refinish the fabric.
- Reconnect battery ground wire and engine ground wire to the firewall.



*Figure 2: Removing the fabric*



*Figure 3: Cutout for crack repair and retrofit*

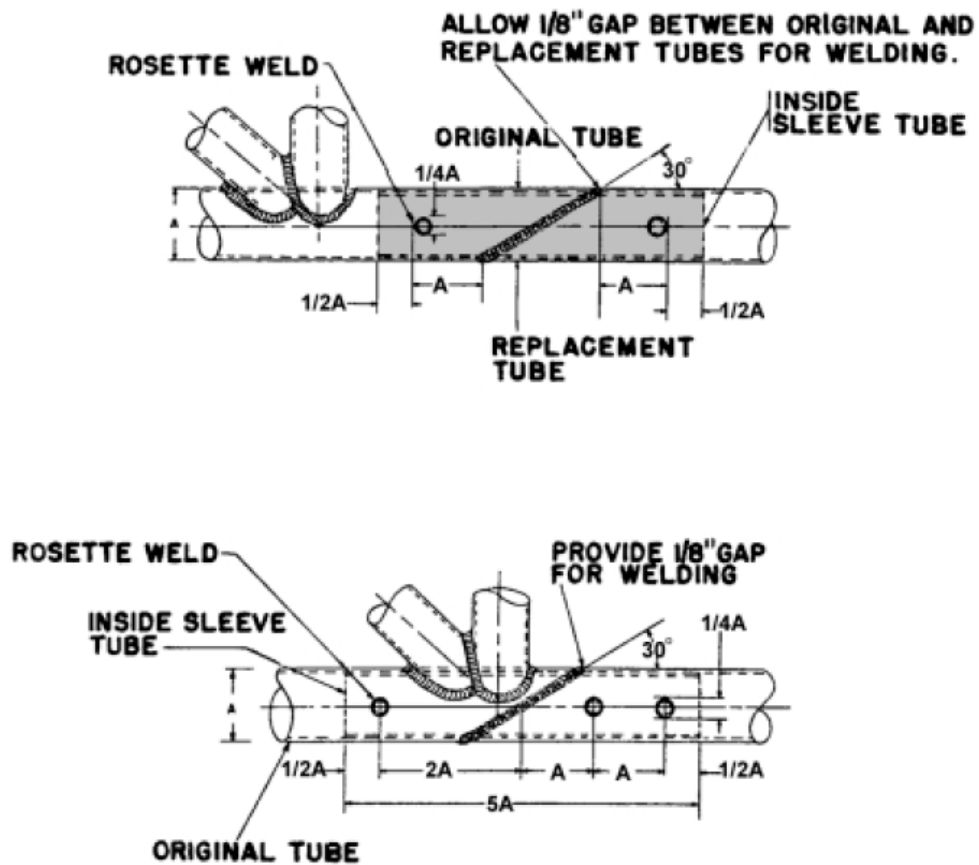


Figure 4: Method of inner sleeve splicing, recommended for tubing crack repair  
(ref. AC 43-13-1B, Aircraft Inspection and Repair, Chapter 04)

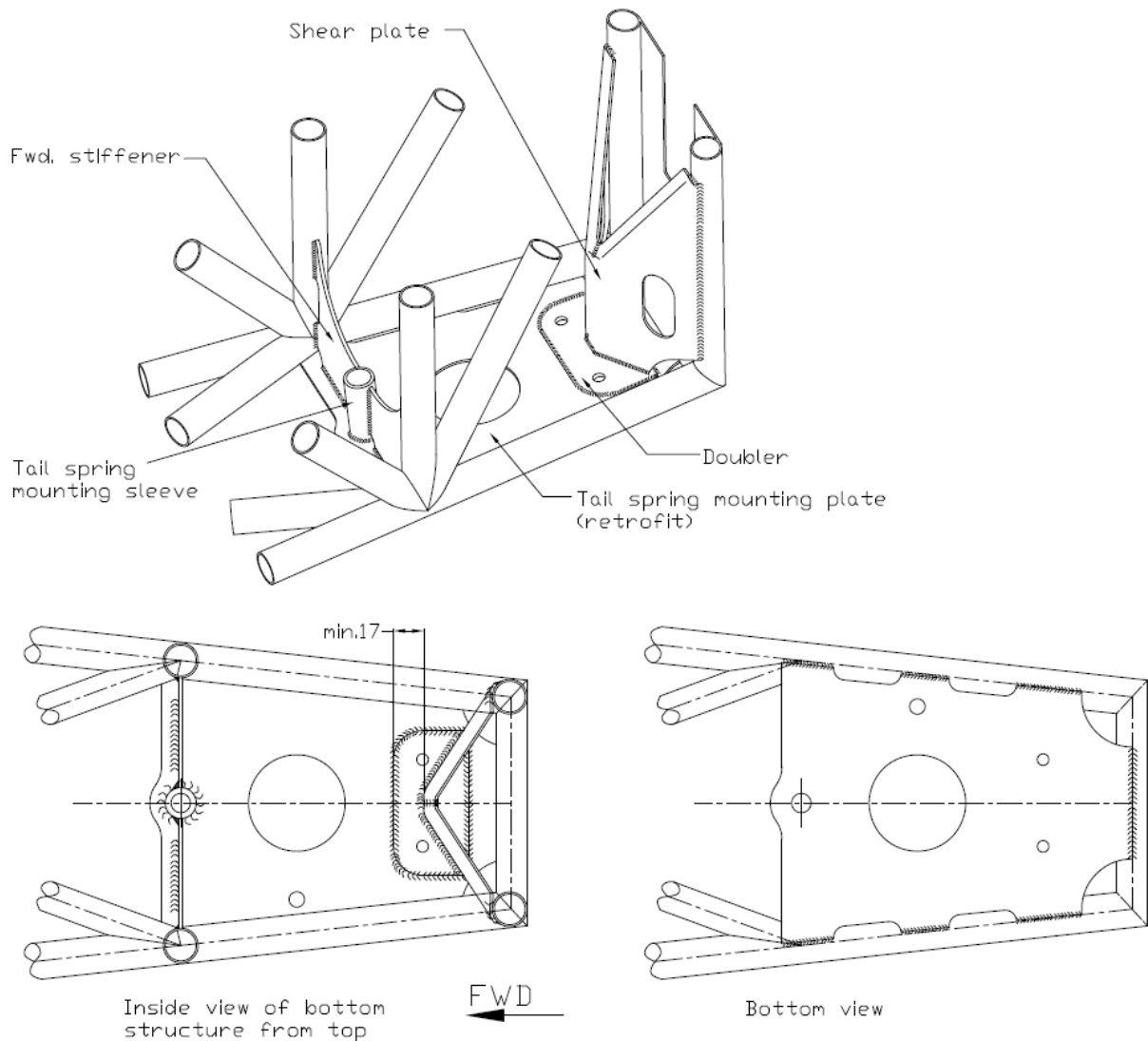


Figure 5: Position and welds of retrofit kit

- Apply anti-corrosion wax to steel tubes around tail spring mounting plate. Make sure not to disturb the designated water drain path on the L/H and R/H sides of the retrofit plates.
- Reassemble the aircraft.
- Make appropriate logbook entry of compliance with PART II of this Service Bulletin.

## MATERIAL

The material required for PART II needs to be ordered from:

EXTRA Flugzeugproduktions- und Vertriebs GmbH  
Flugplatz Dinslaken  
Schwarze Heide 21  
46569 Hünxe / Germany

Order retrofit kit including following items:

Kit No.: SB297B2-1

Eligible for: EA 300/L S/N 01-44, 80-170, 172, 173 and  
1171, 1174-1299

Parts:	tail spring mounting plate	EA-26102.45-01
	doubler	EA-26102.45-02
	shear plate	EA-26102.45-03
	fwd. stiffener (2x)	EA-23102.44
	tail spring mounting sleeve	EA-23102.38
	splice tube $\varnothing$ 16x2mm	EA-86921.12
	replacement tube $\varnothing$ 18x1mm	EA-86921.13

Kit No.: SB297B2-2

Eligible for: EA 300/L S/N 45-79  
EA 300/200 S/N 01-31 and 1032-1043

Parts:	tail spring mounting plate	EA-27102.345-01
	doubler	EA-27102.345-02
	shear plate	EA-27102.345-03
	fwd. stiffener (2x)	EA-27102.344
	tail spring mounting sleeve	EA-27102.338
	splice tube	EA-86921.312
	replacement tube	EA-86921.313

### Please note:

For aircraft in warranty only, 20 manhours is the maximum time to be allowed for the inspection and modification work, per aircraft. Extra Flugzeugproduktions- und Vertriebs-GmbH will only pay for the hours it actually takes an Authorized Service Center (in Europe: Extra Flugzeugproduktions- & Vertriebs-GmbH) to perform the task, up to but not exceeding the "hours" listed. Please reimburse for hourly rates.

**Appendix A:**

Aircraft Type and model:  EA 300/L     EA300/200    Serial Number:

Owner:    Registration:

Total Time:    Total landings (if known):

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The aircraft mentioned above has been inspected according PART I of this Service Bulletin.

Damage has been found:     Yes     No

If yes, description of damage found (if possible attach supporting sketch): Note: If extend of damage is not covered by this Service Bulletin contact EXTRA Flugzeugproduktions- und Vertriebs-GmbH)

The appropriate instruction of    -  Part I    and/or -  Part II    of this Service Bulletin has been carried out. (No deviation from given instructions).

Comments:

Company:    \_\_\_\_\_

Aircraft inspector:    \_\_\_\_\_    Date:    \_\_\_\_\_

Please return a copy of this page by facsimile or airmail to:

EXTRA Flugzeugproduktions- und Vertriebs-GmbH  
Engineering Department / Office of Airworthiness / Quality Assurance  
Schwarze Heide 21

46569 Hünxe (Germany)

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