

## GFA AIRWORTHINESS DIRECTIVE

**TYPE AFFECTED:** LS3 (Except LS3a & LS3-17) Serial no's 454 & 3000 up to 3338.

**SUBJECT:** Replacement of Flap Drive balance Spring in fuselage near undercarriage box.

**BACKGROUND:** The spring may fail due to fatigue resulting in uninitiated flap handle movement during high speed flight.

**DOCUMENTATION:** The Luftfahrt Bundesamt (LBA) has issued AD 95-410 & Rolladen Schneider has issued Technical Bulletin No 3046, which is attached and forms part of this AD.

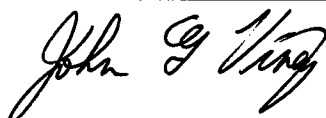
**ACTION REQUIRED:** Replace spring with the new, longer version and relocate its anchor point from the landing gear box to the main bulkhead IAW Technical Bulletin 3046.

**WEIGHT AND BALANCE:** Negligible.

**IMPLEMENTATION:** When spring fails, or at next Annual inspection.

**COMPLIANCE:** The requirements of this GFA Airworthiness Directive are mandatory. This Directive is issued pursuant to the Rules and Regulations of the Gliding Federation of Australia.

**SIGNED:**

  
SENIOR TECHNICAL OFFICER AIRWORTHINESS



For and on behalf of:

THE GLIDING FEDERATION  
OF AUSTRALIA

|                                                          |                                    |     |                                 |
|----------------------------------------------------------|------------------------------------|-----|---------------------------------|
| ROLLADEN-SCHNEIDER<br>Flugzeugbau GmbH<br>LBA-Nr. EB - 4 | Technical Bulletin<br><br>No. 3046 | LS3 | Page 1/4<br><br>Edition Oct. 95 |
|----------------------------------------------------------|------------------------------------|-----|---------------------------------|

Subject : Spring in fuselage flap drive near landing gear box

Effectivity : Sailplane model LS3, version LS3  
Serial numbers: 454, between 3000 and 3338

Accomplishment : immediately, when spring failed or before next annual inspection

Reason : The spring 4R10-31 (cadmium plated steel) in the flap drive may fracture due to fatigue, resulting in flap handle during high speed flight not staying in the -7° negative flap position by itself, but somewhere between 0° and -7° and must be held at -7° by hand, if the pilot wants it to be there.

Material and :

Instructions : Spring 4R10-31 to be exchanged according to drawing 1BR-3b against longer spring (RZ 141 EI, corrosion resistant steel), also forward mounting of spring moved from landing gear box to main bulkhead. See pages 2 to 4 of this TB (excerpt of drawing 1BR-3b) for details, material and installation instructions.

Weight and

Balance : Not affected

Remarks : Modification by manufacturer or national authority approved repair station.

Accomplishment of modification (TB 3046) to be checked by inspector and signed in logbook.

LBA-approved : 06. Nov. 1995



*b.o. Jung*

Erstellt: 01. Nov. 95

*Heucke*

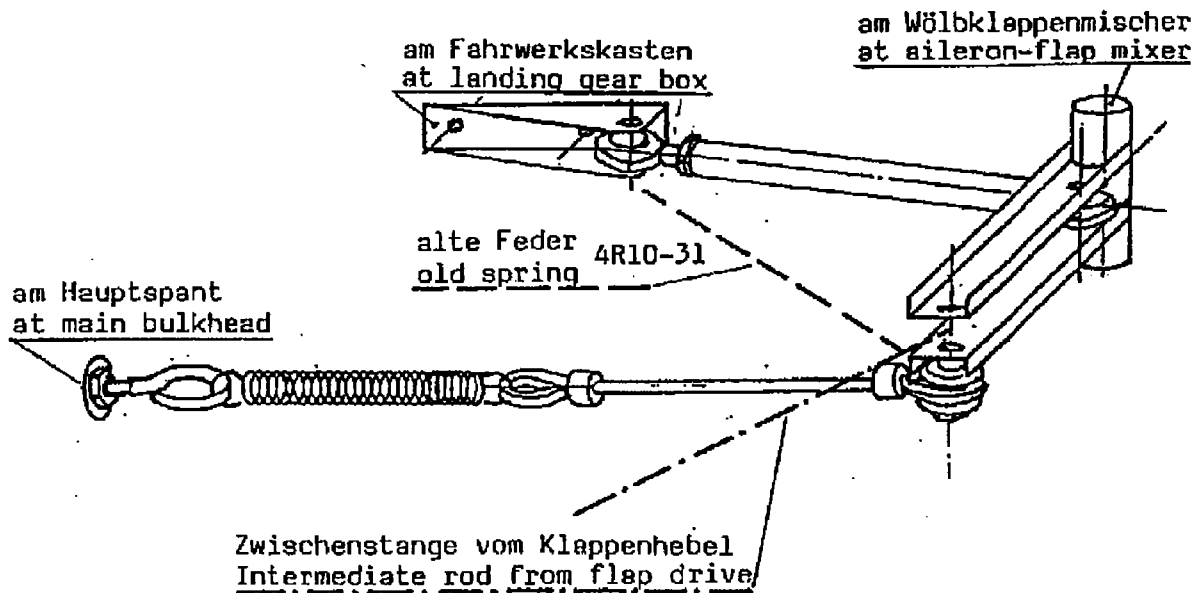
Geprüft:

*Wagner*

**LBA-AD 95-470**

Zeichnung des Wölbklappenantriebs im Bereich des Fahrwerkskastens, Teileliste und Explosionszeichnung zum Zusammenbau.

Drawing of flaperon drive in fuselage near landing gear box, parts list and exploded view for assembly.



| No. | Ges.-/Total<br>Anzahl/Quantity |   | Bezeichnung /<br>Denomination                           | Norm         | Zeichnung /<br>Drawing |
|-----|--------------------------------|---|---------------------------------------------------------|--------------|------------------------|
| 9   | 35                             | 2 | Scheibe / washer $\phi 6.4 \times \phi 12.5 \times 1.6$ | DIN 125-B St |                        |
| 11  | 34                             | 3 | 6kt-Mutter / hex head nut M6-8                          | DIN 985 St   |                        |
| 29  | 1                              | 0 | 6kt-Schraube / hex head bolt M6*52                      | LN 9037      |                        |
| 30  | 4                              | 4 | Scheibe / washer $\phi 6.4 \times \phi 18 \times 1.6$   | DIN 9021 St  |                        |
| 31  | 1                              | 0 | Distanzbuchse / spacer $\phi 8 \times 1$ 15mm           |              | 4R13-39a               |
| 32  | 1                              | 1 | Seil an Feder / cable at spring                         |              | 4R10-173               |
| 33  | 2                              | 1 | Distanzbuchse / spacer $\phi 8 \times 1$ 5.6mm          |              | 4R13-40                |
| 34  | 1                              | 0 | Nadelhülse / needle roller bearing HK $\phi 810$        |              |                        |
| 35  | 3                              | 3 | Scheibe / washer $\phi 8.5 \times \phi 17.0 \times 1.6$ | DIN 125-B St |                        |
| 36  | 1                              | 1 | Feder rostfrei / non corrosive spring R2141EI           |              |                        |
| 37  | 1                              | 1 | Ringschraube / ring bolt M6*60 shortened                |              |                        |

Anzahl für Änderung / Quantity requ. for modification

Siehe folgende Seite für Explosionszeichnung und Teilnumerierung  
See following page for exploded view and parts numbering

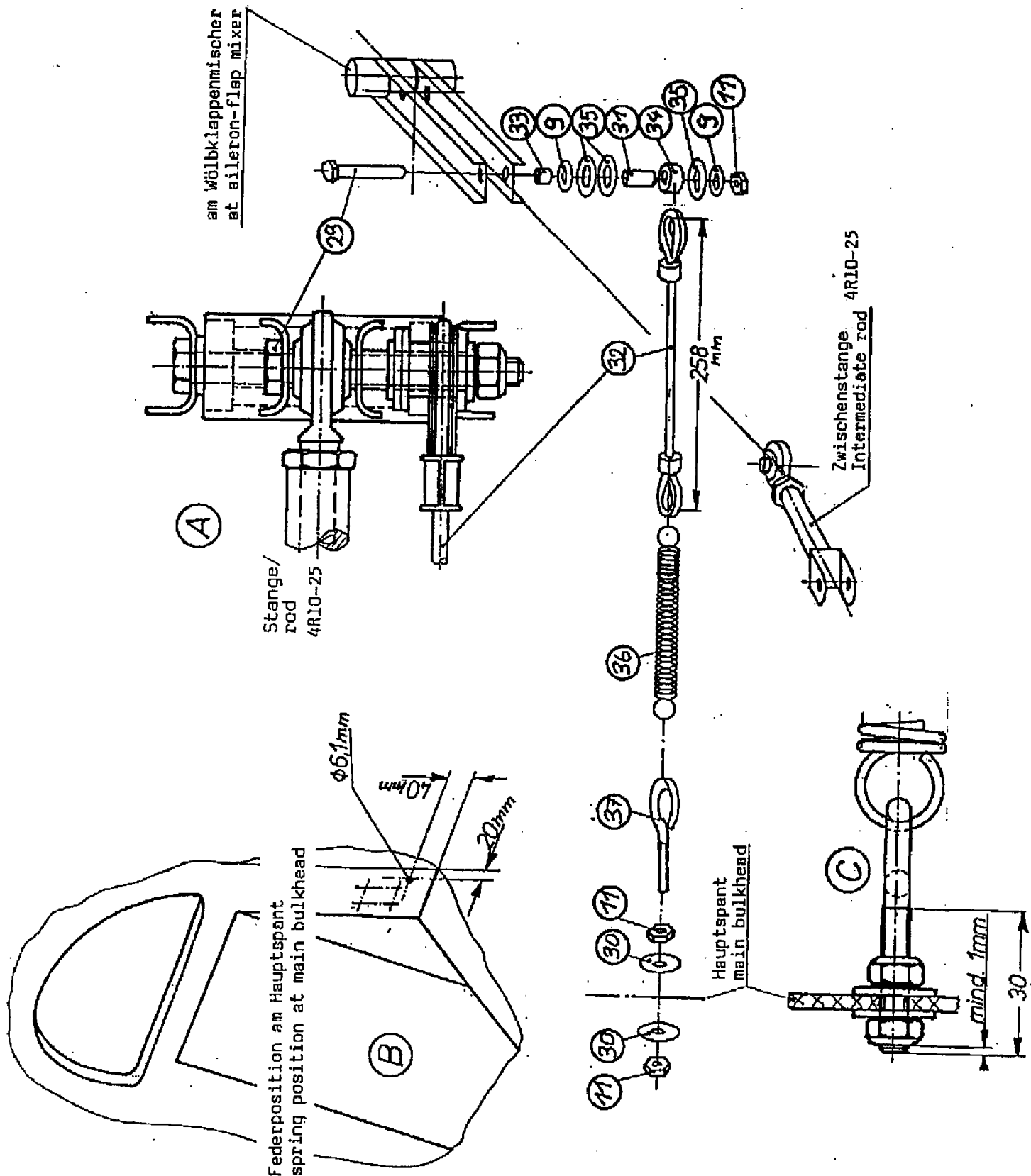
Erstellt: 12.Okt.95

*Heuer*

Geprüft:

*Wapka*

Explosionszeichnung des Wölbklappenantriebs im Bereich des Fahrwerkskastens.  
Exploded view of flaperon drive in fuselage near landing gear box.



|                                                          |                                                         |     |                 |
|----------------------------------------------------------|---------------------------------------------------------|-----|-----------------|
| ROLLADEN-SCHNEIDER<br>Flugzeugbau GmbH<br>LBA-Nr. EB - 4 | Technische Mitteilung<br>Technical Bulletin<br>No. 3046 | LS3 | Page 4/4        |
|                                                          |                                                         |     | Edition Okt. 95 |

Arbeitsanweisung Wölbklappenantrieb im Bereich des Fahrwerkskastens.

Ziffern siehe Zeichnung Blatt 3

Instructions for flaperon drive in fuselage near landing gear box.

Numbers refer to drawing page 3

1. Kofferraumdeckel ausbauen. Remove baggage compartment cover
2. Mutter 11 auf Schraube 29 lösen, Scheibe 9 und 35 entnehmen, Feder 4R10-31 vom Nadellager 34 abziehen, Seil 32 auf Lager 34 schieben, Scheiben 35 und 9 aufsetzen, Mutter 11 festziehen. Achtung, daß keine Teile in den Rumpf fallen! Loosen nut 11 on bolt 29, take out washers 9 and 35, remove spring 4R10-31 from needle roller bearing 34, set cable 32 on needle roller bearing, place washers 35 and 9 on bolt and tighten nut 11. Be careful not to drop parts into fuselage!
3. Feder 4R10-31 in gleicher Weise am Fahrwerkskasten entfernen, Hülsen und Scheiben auf der Schraube lassen, Mutter festziehen. Remove spring 4R10-31 at landing gear box bracket in the same manner, leave spacer and washers on bolt, re-tighten nut.
4. Am Hauptspant Bohrung 6.1 mm entsprechend Einzelheit "B" anbringen. Drill 6.1mm (0.24 in) hole at main bulkhead as given under detail "B".
5. Ringschraube 37 am Hauptspant entsprechend Einzelheit "C" einschrauben, beidseitig Scheiben 30 nicht vergessen! Assemble ring bolt 37 at main bulkhead as given under detail "C", do not forget large washers 30 on both sides of bulkhead.
6. Kontrolle, daß Feder 36 bei Klappenstellung "-5" nicht locker hängt. Check that spring 36 is not loose with flap handle in "-5" position.
7. Kontrolle aller Verbindungen, sowie speziell die Anordnung der Scheiben entsprechend Einzelheit "A" (Stange 4R10-25 und Seil 32 sind in die gleiche Ebene gedreht), Fremdkörperkontrolle, sowie Einbau des Kofferraumsdeckels. Check all connections, especially positioning sequence of washers as given under detail "A" (rod 4R10-25 and cable 32 are drawn in the same plane), inspect for foreign matter, and re-assemble baggage compartment cover.
8. Kontrolle der Wölbklappen- und Quersteuerungsausschläge entsprechend den Angaben im Wartungshandbuch. 8. Check all flap- and aileron deflections according to details given in Maintenance Manual.

Erstellt: 12.Okt.95

*Heuck*

Geprüft

*Wapka*