#### THE GLIDING FEDERATION OF AUSTRALIA



**GFA AD 540** 

(ISSUE 1)

# **CANCELLED 21/05/2019**

# REFER TYPE CERTIFICATE HOLDERS CURRENT DATA

# **GFA AIRWORTHINESS DIRECTIVE**

TYPE AFFECTED: LS8, Version LS8a only, all serial numbers with English manuals.

SUBJECT: Amendment to Flight Manual.

BACKGROUND: A correction is required to the wing water tank filling sequence.

DOCUMENTATION: The attached Rolladen-Schneider Technical Bulletin No 8009

forms part of this AD.

ACTION REQUIRED: Exchange pages in the Flight Manual in accordance with the

requirements of TB 8009.

WEIGHT AND BALANCE: Not affected.

IMPLEMENTATION: Before use of water ballast.

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: Mike Valentine For and on behalf of:

for THE GLIDING FEDERATION CHIEF TECHNICAL OFFICER AIRWORTHINESS OF AUSTRALIA

**GFA AD 540** ISSUE: 1 29 August 2000 Page 1 of 7

| Rolladen-Schneider   |                             |       | Page 1 of 1         |
|----------------------|-----------------------------|-------|---------------------|
| Flugzeugbau GmbH     | Technical Bulletin No. 8009 | LS8-a |                     |
| LBA-No. EB-4 / I-B16 |                             |       | Edition 31.May 2000 |

Subject: Flight Manual in English language.

Effectivity: LS8, Version LS8-a only, all serial numbers with Manuals in English

language.

Accomplishment: Before use of water ballast.

Reason: Correction of wing water tank filling sequence.

Material and Instructions: By the operator:

Exchange the following pages of Flight Manual against Edition

Oct. 1999: 0-2, 0-3, 4-9.

Weight and Balance: Not affected.

Remarks: Accomplishment by the Operator.

Accomplishment must be entered into page 14-1 <u>TB-AD-Accomplishment</u>
<u>List</u> in Maintenance Manual by inspector during next annual inspection.

LBA-approved:

1 1. 07. 00

Prepared:
31. May 2000 Results
D:\GS\TM\TM8009 000.doc

Verified:

Wapka

#### 0 Manual Contents

0.1 Log of Revisions

Any revision of the present manual, except actual weighing data, must be recorded in the following table and in case of approved Sections endorsed by the responsible airworthiness authority. The new or amended text in the revised page will be indicated by a black vertical line in the left hand margin, and the revision No. and the date will be shown on the bottom left hand of the page.

| Rev.<br>No. | Pages affected             | Date of Issue | LBA-<br>Approval<br>Signature | Date of Approval | Date of<br>Insertion | Signature |
|-------------|----------------------------|---------------|-------------------------------|------------------|----------------------|-----------|
| 1           | 0-2, 0-3, 4-9<br>(TB 8009) | Oct. 1999     | Euro Luc                      | 1 1. 07. 00      |                      |           |
|             |                            |               |                               | · ·              |                      |           |
|             | -                          |               |                               |                  | ·                    | ·         |
|             |                            |               |                               |                  |                      |           |
|             |                            | ·             |                               |                  |                      |           |
|             |                            |               |                               | ·                |                      |           |
|             |                            |               |                               |                  |                      |           |
|             |                            |               |                               |                  |                      |           |
|             |                            |               |                               |                  |                      |           |
|             |                            | `             |                               |                  |                      |           |

Edition: Oct. 1999

Revision - 1

Page 0-2

| Prepared: Wolf Gewill         | Verified: Whaples | Complies:      |
|-------------------------------|-------------------|----------------|
| D:\GS\8A\fhbe-8a_012.doc/14:4 | 8                 | Seite 2 von 56 |

## 0.2 List of Effective Pages

| Chapter | Page       | Date                     | Chapter    | Page | Date                     |
|---------|------------|--------------------------|------------|------|--------------------------|
| 0       | Title page | April 1999               | 4          | 4-14 | April 1999               |
|         | 0-1        | April 1999               |            | 4-15 | April 1999               |
|         | 0-2        | Oct. 1999                | <b> </b>   | 4-16 | April 1999               |
|         | 0-3        | Oct, 1999                |            | 4-17 | April 1999               |
|         | 0-4        | April 1999               | .]         |      | -                        |
|         |            | •                        |            |      |                          |
|         |            |                          | .5         | 5-1  | April 1999               |
| 1       | 1-1        | April 1999               |            | 5-2  | April 1999               |
| _       | 1-2        | April 1999               | 1 1        | 5-3  | April 1999               |
|         |            |                          |            |      | <b></b>                  |
|         |            |                          |            |      | ~                        |
|         | }          |                          | 6          | 6-1  | April 1999               |
| 2       | 2-1        | April 1999               | 1          | 6-2  | April 1999               |
|         | 2-2        | April 1999               | <b>!</b>   |      | •                        |
|         | - 2-3      | April 1999               |            |      |                          |
|         | 2-4        | April 1999               |            |      |                          |
|         | 2-5        | April 1999               | 7          | 7-1  | April 1999               |
|         | 2-6        | April 1999               | 1          | 7-2  | April 1999               |
|         | 2-7        | April 1999               |            | 7-3  | April 1999               |
|         | 2-8        | April 1999               | ì          | 7-4  | April 1999               |
|         | -          | ripini 1999              | 1          | 7-5  | April 1999               |
|         | ł l        |                          | l i        | 7-6  | April 1999               |
|         |            |                          |            | 7-7  | April 1999<br>April 1999 |
| 3       | 3-1        | April 1999               |            | /-/  | April 1999               |
| 3       | 3-2        | April 1999<br>April 1999 |            |      |                          |
|         | 3-3        | April 1999               | 8          | 8-1  | April 1999               |
|         | 3-4        | April 1999<br>April 1999 | °          |      |                          |
|         | 3-4        | April 1999<br>April 1999 | 1          | 8-2  | April 1999               |
|         |            |                          |            | 8-3  | April 1999               |
|         | 3-6        | April 1999               |            | 8-4  | April 1999               |
|         |            |                          | į .        | 8-5  | April 1999               |
|         |            |                          |            | 8-6  | <b>April</b> 1999        |
| 4       | 4-1        | April 1999               |            |      |                          |
|         | 4-2        | April 1999               |            | _ [  |                          |
|         | 4-3        | April 1999               | 9          | 9-1  | April 1999               |
|         | 4-4        | April 1999               | ]          | 1    |                          |
|         | 4-5        | April 1999               |            |      |                          |
|         | 4-6        | April 1999               |            | -{   | •                        |
|         | 4-7        | April 1999               |            | i    |                          |
|         | 4-8        | April 1999               | ]          |      |                          |
|         | 4-9        | Oct. 1999                |            | J    |                          |
|         | 4-10       | April 1999               | <u> </u>   | ļ    |                          |
| l       | 4-11       | April 1999               | ]          |      |                          |
|         |            |                          |            |      |                          |
|         | 4-12       | April 1999               | <b>A</b> . | I    |                          |

Edition: Oct. 1999

Revision - 1

Page 0-3

#### 4.5.10 Water Ballast

- (a) Use clear water without any additives.
- (b) Increase tyre pressure to 4 bar < 58 psi>, when using full water ballast.
- (c) Wing integral tanks together hold about 190 Litres <50.2 US gallons, 41.8 Imp. gallons >.
- (d) Maximum permissible water ballast depends on loading conditions, see pages 4-11 ff.
- (e) Two tanks per wing.
- (f) Tail tank (3.8 to 5.5 Litres <1 to 1.5 US gallons, 0.84 to 1.21 Imp. gallons>) has 2 cockpit water ballast levers: the short one opens the outer wing tanks only, both levers open both tanks; the tail tanks always opens during operation of one of these levers.
  - or Tail integral tank (12 Litres <3.2 US gallons, 2.64 Imp. gallons>) has 1 cockpit water ballast lever operating all tanks simultaneously.

Important Note:

When using water ballast, always fill inner wing tanks first, thereafter fill outer tanks with the remaining amount.

Inner tanks each carry about 65 Litres <17.2 US gallons, 14.3 Imp. gallons>;

Inner tanks each carry about 65 Litres <17.2 US gallons, 14.3 Imp. gallons>; outer tanks each carry about 30 Litres <7.9 US gallons, 6.6 Imp. gallons>.

- (g) Use as clean water as possible to avoid damage of sealing rings by foreign matter.
- (h) Filling sequence: always tail tank first, then wing tanks.

<u>Warning</u>: Wing water ballast always must be compensated by tail tank water according to table page 4-12.

## 4.5.10.1 Vertical Tail Fin Tank Loading Procedure

- (a) Open dump valves by shifting lever or levers in cockpit forward.
- (b) Insert tail fin tank adapter to filling funnel tube and connect to dumping outlet just inside lower right rudder cut-out, with rudder deflected to the left.
- (c) Fill tail fin tank via funnel in relation to intended wing water amount, see table page 4-12.
- (d) Markings correspond to 0.5 Litres <0.13 US gallons, 0.11 Imp. gallons> steps, equivalent to 0.5 kg <1.1 lbs>.
- (e) Use water level in funnel tube relative to markings on inside of translucent right rudder gap seal to determine correct amount in relation to wing amount. Specified amount of water must be verified under the following conditions:
  - 1. Wings level
  - 2. Landing gear and tail end on ground
  - 3. Filling tube near markings
- (f) Upper red marking corresponds to maximum amount of tail fin water ballast:
  - 5,5 Litres <1.45 US gallons, 1.21 Imp. gallons>
  - 3,8 to 4,1 Litres <1.00 to 1.08 US gal., 0.84 to 0.9 Imp.gal.> for the combination of tail fin tank with tail fin battery box

12 Litres <3.17 US gal., 2.64 Imp. gal.> for the integral tail fin tank.

- (g) The combination of battery and/or water cannot be chosen at will, because battery position was fixed during last C.G. weighing, see also entry on page 6-1/2.
- (h) Close dump valves by shifting single or double cockpit lever backward and remove funnel from tail. For filling of wing tanks, the cockpit levers must stay in the closed position.

<u>Warning:</u> Mandatory tail tank filling always exactly to markings under right rudder seal and filling tube water level in correct relation to total wing water amount according to table page 4-12. Otherwise, keeping to the maximum approved rear C.G. position cannot be guaranteed.

Warning: Filling funnel meshing is mandatory to guarantee tail fin tank valve function.

Edition: Oct. 1999

LBA-appr. Revision - 1

Page 4-9

|           | Herrk                 | Verified: khapka | Complies:       |
|-----------|-----------------------|------------------|-----------------|
| D:\GS\8A\ | fhbe-8a 012.doc/11:57 |                  | Seite 29 von 56 |

| ROLLADEN-SCHNEIDER | Maintenance Manual        | LS8-a | Page 14-1          |
|--------------------|---------------------------|-------|--------------------|
| Flugzeugbau GmbH   | TB-AD-Accomplishment List |       | Edition April 1999 |

Serial Number:

Reg. Signs:

Year of Manuf.:

| ТВ                      | Components  | Date     | Steps /  | 1*             | perio | Time                      | Accomplishment |
|-------------------------|---|----------|--|----------------|-------|---------------------------|----------------|
| LBA-AD                  | concerned   | 12.000   | Modification   | <del> </del> _ | dical | Limit                     | Inspector      |
| 8001                    | Preparation for<br>LS8- 18                          | 12.06.96 | Structural<br>Modifications<br>during<br>Manufacture | X              |       | opt.                      |                |
| 8002                    | Modification from<br>LS8-a to LS8-18                | 11.03.99 | Outer wingtips<br>(only with<br>TB 8001)             | X              | -     | opt.                      |                |
| <u>8004</u>             | Canopy jettison for 40                              | 08.06.99 | Installation of                                      | 1*             |       | Before                    |                |
| 1999-268                | cm wide instrument<br>panel                         |          | deflector 3R7-73                                     |                |       | next<br>flight            |                |
| 8005<br>2000-084        | Wing air brake levers                               | 14.09.99 | Check for<br>corrosion and<br>jamming                | X              |       | Before<br>next<br>flight  |                |
| 8006/2<br>2000-086      | Additional draining of both outer wingtanks         | 21,10.99 | Closing of tubes<br>when malfunction<br>occurs       | X              |       | From case to case only    |                |
| <u>8007</u><br>2000-067 | Flight and<br>Maintenance Manuals<br>LS8-a          | 25.11.99 | LBA-approved<br>manuals, Edition<br>April 1999       | X              |       | Within 3<br>months        |                |
| <u>8008</u>             | Maintenance Manual<br>LS8-18 in English<br>language | 06.04.00 | -  |                |       |                           | N/A            |
| <u>8009</u>             | Flight Manual <b>LS8-a</b><br>in English language   | 31.05.00 | Correction of<br>water tank filling<br>sequence      | X              |       | Before<br>use of<br>water |                |
|                         |   |          |  |                |       |                           | •              |
|                         |   |          |  | -              |       |                           |                |
|                         |   |          |  | -              |       |                           |                |
|                         |   | ·        |  |                |       |                           |                |
| ,                       | ·   | ``       |  |                | -     |                           |                |
|                         |   |          |  |                |       |                           | <u> </u>       |
|                         |   |          |  |                |       |                           |                |

| Erstellt: | Comera.  |           |
|-----------|----------|-----------|
| 27.06.00  | Geprüft: | Complies: |
| 27.00.00  | <u></u>  | ,         |

| ROLLADEN-SCHNEIDER | Maintenance Manual        | LS8-18 | Page 14-1         |
|--------------------|---------------------------|--------|-------------------|
| Flugzeugbau GmbH   | TB-AD-Accomplishment List |        | Edition July 1999 |

Serial Number: Reg. Signs: Year of Manuf.:

|                         |                                       |                                       | -                  |                |              |             | ···                                   |
|-------------------------|---------------------------------------|---------------------------------------|--------------------|----------------|--------------|-------------|---------------------------------------|
| TB                      | Components                            | Date                                  | Steps /            | 1*             | perio        | Time        | Accomplishment                        |
| LBA-AD                  | concerned                             |                                       | Modification       |                | dical        | Limit       | Inspector                             |
| 8001                    | Preparation for                       | 12.06.96                              | Structural         | X              |              | opt.        |                                       |
|                         | LS8- 18                               |                                       | Modifications      |                |              | _           |                                       |
|                         |                                       |                                       | during             |                |              |             |                                       |
|                         |                                       |                                       | Manufacture        |                | İ            |             | 1                                     |
| 8002                    | Modification from                     | 11.03.99                              | Outer wingtips     | X              |              | opt.        | <del></del>                           |
|                         | LS8-a to LS8-18                       |                                       | (only with TB8001) |                | l i          | opi.        |                                       |
|                         |                                       |                                       | (0)                |                | 1            |             |                                       |
|                         |                                       |                                       |                    | -              | <u> </u>     |             | · · · · · · · · · · · · · · · · · · · |
|                         |                                       |                                       | ļ                  |                | Ì            |             |                                       |
|                         | -                                     |                                       |                    |                | 1            | •           |                                       |
| <u>8004</u>             | Canopy jettison for 40                | 08.06.99                              | Installation of    | <i>I</i> *     |              | Before      |                                       |
| 1999-268                | cm wide instrument                    |                                       | deflector 3R7-73   | -              |              | next        | İ                                     |
|                         | panel                                 |                                       |                    |                |              | flight      |                                       |
| <u>8005</u>             | Wing air brake levers                 | 14.09.99                              | Check for          | X              | <del> </del> | Before      |                                       |
| 20 <del>00-</del> 084   |                                       |                                       | corrosion and      | ^              |              | next        | 1                                     |
| 2000 007                |                                       |                                       | jamming            |                | 1            | flight      |                                       |
| 8006/2                  | Additional draining of                | 21.10.99                              | Closing of tubes   | X              | <del></del>  | Before      |                                       |
| 2000-086                | both outer wingtanks                  | ~1.1U:77                              | Civsing of tubes   | ^              |              | _           |                                       |
| 2000-000                | John Outer Wingtonia                  |                                       |                    |                |              | using       |                                       |
|                         |                                       |                                       |                    |                |              | water       |                                       |
| 8007                    | Flight- and                           | 25.11.99                              |                    | -              |              | ballast     |                                       |
| <u>2007</u><br>2000-067 | Maintenance Manuals                   | 23.11.99                              |                    | 0              | 0            |             | N/A                                   |
| 2000-007                | LS8-a                                 |                                       |                    |                |              |             |                                       |
| <u>8008</u>             | Maintenance Manual                    | 06.04.00                              | Revision 1         | 1*             |              | D C         |                                       |
| 0000                    | in English language                   | 00.04.00                              | Kevision 1         | 1+             | ,            | Before      | 1                                     |
| <u> </u>                | IN English language                   |                                       |                    |                |              | next        |                                       |
| <u>8009</u>             | Flight Manual LS8-a                   | 31.05.00                              |                    |                |              | Annual      |                                       |
| 8009                    | in English language                   | 31.03.00                              | <del></del>        | 0              | 0            |             | N/A                                   |
|                         | in English tanguage                   |                                       |                    | ,              |              |             |                                       |
|                         |                                       | · · · · · · · · · · · · · · · · · · · |                    |                |              |             | <del></del>                           |
|                         |                                       |                                       |                    |                |              |             |                                       |
|                         |                                       |                                       |                    |                |              |             |                                       |
|                         | <u> </u>                              |                                       | -                  |                |              | <del></del> | · · · · · · · · · · · · · · · · · · · |
|                         |                                       |                                       | i                  |                |              |             |                                       |
|                         |                                       |                                       |                    |                |              |             | İ                                     |
|                         |                                       |                                       | · ·                |                |              |             |                                       |
|                         |                                       |                                       |                    |                |              |             |                                       |
|                         |                                       |                                       |                    |                |              |             |                                       |
|                         | .12.5.5                               |                                       |                    |                |              |             |                                       |
|                         |                                       |                                       |                    |                |              |             |                                       |
|                         |                                       |                                       |                    |                |              |             |                                       |
|                         |                                       |                                       |                    |                |              |             | <del></del>                           |
|                         |                                       | `.                                    |                    |                |              |             |                                       |
|                         |                                       |                                       | İ                  |                | ļ            |             |                                       |
|                         | · · · · · · · · · · · · · · · · · · · |                                       | _                  | <del>- 1</del> |              |             |                                       |
|                         |                                       |                                       |                    |                |              |             |                                       |
|                         |                                       |                                       |                    |                |              |             |                                       |
|                         |                                       |                                       |                    | $\dashv$       | —— <u></u>   |             | <u> </u>                              |
|                         |                                       |                                       |                    |                |              |             |                                       |
|                         |                                       | }                                     |                    |                |              |             |                                       |
|                         |                                       |                                       | <u>_</u>           |                |              |             | <u></u>                               |

|            | · · · · · · · · · · · · · · · · · · · |           |
|------------|---------------------------------------|-----------|
| Erstellt:  | Geprüft:                              | Complies  |
|            | Coprair.                              | Complies: |
| 27.06.00   | 1                                     | <u>-</u>  |
| [ 27.00.00 | · · · · · · · · · · · · · · · · · · · |           |