



AIRWORTHINESS ADVICE NOTICE

TYPE AFFECTED: LS 4
LS 4-a
LS 4-a TOP

SUBJECT: Miscellaneous airworthiness information.

BACKGROUND: This AN records airworthiness information which is useful to know.
Copies of Technical Notes may be obtained from the GFA Secretariat.

APPROVED MODIFICATIONS:

1. Undercarriage spring rate. Rolladen Schneider Technical Bulletin 4013 allows the modification of the LS 4 undercarriage suspension by adding a third rubber element.

2. Waterballast system. Rolladen Schneider Technical Bulletin 4014 allows the installation of the LS 4a waterballast system in the LS 4.

3. Additional glass layer. Rolladen Schneider Technical Bulletin 4016 allows the installation of an additional layer of 90070 glass on the outside of the wing during refinishing to reduce surface waviness. This is only applicable to the LS 4.

4. Modification of LS 4 to LS 4a. Rolladen Schneider Technical Bulletin 4018a allows the modification of LS 4 to LS 4-a. As this requires the reissue of the Certificate of Registration and the Certificate of Airworthiness the CTOA must be contacted regarding this change.

5. Installation of an Emergency Locator Transmitter. Rolladen Schneider Technical Bulletin 4024 allows the installation of the Martech EB-2BCD ELT.

6. Movable upper instrument panel. Rolladen Schneider Technical Bulletin 4026 allows the modification of the instrument panel such that the upper part moves with the canopy.

SIGNED:

CHIEF TECHNICAL OFFICER AIRWORTHINESS

For and on behalf of:

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OF AUSTRALIA

POSSIBLE DEFECT:

1. There have been defect reports received both here and overseas relating to canopy support structure failures in LS1, LS3 and LS4 type sailplanes.

The canopy when extended is supported on a structure which is subjected to in service fatigue loads caused by opening in windy conditions and tow-out with canopy unlocked (causing bouncing on the strut).

The fatigue accumulates and can result in failure of the lower 25 x 25 mm square (fore and aft) structure anchored to the floor. This tube is thin walled (<1 mm) and generally fails towards the rear end of the central tube. Refer photos.



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Repair welding work requires the four floor mounting points to be jigged to ensure the geometry is maintained and the part fits back in place. The repair should be carried out in accordance with an engineering order or approved data equivalent.

It is highly recommended that the area be inspected for defects or cracking at every Daily Inspection.

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4. Modification of LS4 to LS 4a (continued).

TYPES AFFECTED: LS 4 Sailplane - All serial numbers.

SUBJECT: Upgrading to model LS 4A (Refer Bulletin 4018 attached)

BACKGROUND: Rolladen Schneider Technical. Bulletin No. 4018 outlines the modifications required to upgrade an LS4 to an LS-4A.

NOTE! Upgrading is not mandatory, but if the upgrading is done, then compliance with these instructions is mandatory.

ACTION REQUIRED: For full upgrading -

- (1) Modify the undercarriage to Technical Bulletin 4013
- (2) Modification of water ballast system to Technical Bulletin 4014
- (3) Add 'A' to cockpit type placard
- (4) Surrender C of A and C of R to GFA Secretariat for upgrading to LS-4A. A weighing summary must accompany C of A and C of R (See 7)
- (5) Fit the speed limiting and loading placard into the cockpit
- (6) Obtain and operate to the revised May 1983 editions of the Flight and Maintenance Manuals
- (7) Weigh the sailplane
- (8) Enter full details into the logbook
- (9) Amend Maintenance Release type designation.

IMPLEMENTATION: This upgrading is to be carried out by a person endorsed with an annual form 2 maintenance authority. The weighing is to be carried out appropriately authorised W&B endorsed inspector.

COMPLIANCE: The above requirements are mandatory.

Rolladen Schneider Flugzeugbau GmbH,	Technische Mitteilung Technical Bulletin	No. 4018	Blatt 1 van 1.
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Gegenstand: Umrüsten der LS4 in LS4-a

Betroffen: Segelflugzeug Baureihe LS4

Dringlichkeit:
wahlweise

Vorgang: Umpwandlung in LS4-a (MIX. Flächenbelastung 50 kg/m²)

Maßnahmen und Material:

- 1) Änderung Fahrwerk gem. rM
- 2) Wahlweise Änderung Wasserballast gem. TM 4014 (2 trennte ge
- 3) Wassersacke pro flugel) 3
- 4) Flug- und Wartungshandbuch LS4-a, Ausgabe April
- 5) 198

Gewicht und SP-Lage: Änderung Typenschild durch Hinzufügen "von -A
MUssen neu bestimmt werden

Hinweise:

- 1) Material, Verarbeitungshinweise und Zeichnungen, können unter Angabe der Werknummer vom Hersteller bezogen werden
- 2) Die Umpwandlung ist von einem Prüfer Klasse 3-abzunehmen und im Bordbuch unter folgender Angabe zu bescheinigen: Umrüstung in LS4-a, TM 4014 nicht durchgeführt bzw. durchgeführt
- 3) Eintrag der durchgeführten TMs und LTAs im Wartungshandbuch Blatt 14-1 T-LTA-Durchführungsbeleg
- 4) LS4-a Zulassung fGr Wolkenflug nur möglich, wenn TM 4014 NICHT durchgeführt

Subject: Modification of LS4 to LS4-a

Effectivity: Sailplane model LS4

Accomplishment: optional

Reason: Modification to LS4-a

Instructions and Material:

- 1) Modify landing gear according to TB 4013 (Third spring unit)
- 2) Optional modification of water ballast system according to 18 4014 (2 separate ballast bags per wing)
- 3) Provisional Flight- and Maintenance Manuals, Edition May 83
- 4) Modify Type Placard at main bulkhead by adding -A
- 5) Exchange cockpit speed limit and loading placard

Weight and Balance: Must be redetermined

Remarks:

- 1) Materials, Instructions and drawings may be obtained from manufacturer
- 2) Modification must be checked by inspector and signed in logbook with the following entry: Modification to LS4-a, TB 4014 not accomplished or accomplished
- 3) Enter accomplished TBs or ADs on page 6-1 of Maintenance Manual, TB-AD-Accomplishment List.
- 4) LS4-a approval for cloud flying only, if TB 4014 has NOT been accomplished.

RECEIVED

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Edition:

1. June, 1983