

Subject	:	Manual revisions
Effectivity	:	Type: LS Sailplanes Variants: LS1-0, LS1-a, LS1-b, LS1-c, LS1-d, LS1-f. LS1-f (45) LS4, LS4-a, LS4-b LS6, LS6-a, LS6-b, LS6-c, LS6-c18, LS6-18w
Accomplishment	:	Instructions 1 – 3: Prior to the next maintenance or next annual inspection, latest December 31. 2011 Instructions 4 ÷ 6: optionally
Reason	:	<p>New flight and maintenance manuals have been issued for the above mentioned LS1 variants. New maintenance manuals have been issued for the above mentioned LS4 and LS6 variants.</p> <p>Manuals of different variants have been combined into one manual as far as reasonable. All manuals have been updated to the latest level of knowledge.</p> <p>In the LS1 flight manuals the recommended winch launching speeds and the data for the weak links have been changed.</p> <p>Flight manual changes for LS4, LS4-a and LS4-b are resulting from maintenance manual changes for the LS4 variants. As the flight manuals won't be combined only single pages must be exchanged.</p> <p>The placards of all LS1 variants are no more up to date and must be exchanged.</p> <p>The data for in-flight C.G. and max. mass of the non lifting parts were not the same for all LS4 variants although the gliders are equal concerning structure and aerodynamics. The data and procedures of the latest variant LS4-b will be adopted for the other variants too.</p> <p>This means that cockpit load limits of the LS4 may be increased and the max. mass of the non lifting parts of LS4 and LS4-a may be increased. TN 4046 and 4047 are valid for variants LS4 and LS4-a also.</p> <p>In the LS4-b AFM a fixed value for the max. TOW without waterballast is given. This value will be replaced by the equation $W_{max} = W_{non\ lifting\ parts} + W_{wings}$.</p> <p>In the initial LS4-b maintenance manuals the placard for "Canopy Emergency Release" is not shown.</p>
Instructions	:	<p>1. Exchange of manuals:</p> <p>LS1-0, LS1-a, LS1-b, LS1-c, LS1-d: Flight manual for the sailplane LS1 issue May 2011, Maintenance manual for the sailplane LS1 issue May 2011</p> <p>LS1-f. LS1-f (45): Flight manual for the sailplane LS1-f issue May 2011, Maintenance manual for the sailplane LS1-f issue May 2011</p> <p>LS4, LS4-a, LS4-b: Maintenance manual for the sailplane LS4 issue May 2011</p> <p>LS6, LS6-a, LS6-b, LS6-c, LS6-c18, LS6-18w: maintenance manual for the sailplane LS6 issue May 2011</p> <p>All variants: Those manual pages or other documents which have been changed with regards to contents are listed in the amendments list of the respective manual. The new or amended text is indicated by a black vertical line at the right hand margin of the revised page and should be regarded</p> <p>2. Exchange the following flight manual pages against new pages issued May 2011 marked with TNLS-S-01. Respect the changes marked in the right hand margin.</p> <p>LS4: 0-5, 1-5, 1-6 LS4 USA edition: 1-1, 1-2, 1-4, 2-3, 2-4 remove pages 6-3 ÷ 6-5 LS4-a: 1-1, 1-2, 1-4, 2-3 remove pages 6-3 ÷ 6-5 LS4-a USA edition: 1-1, 1-2, 1-4, 2-3, remove pages 6-3 ÷ 6-5 LS4-b (without fin tank): 0-1, 0-2, 2-4 LS4-b (with fin tank): 0-1, 0-2, 2-4</p>

3. All LS1 variants: exchange all placards against new ones according to maintenance manual section 6.

4. LS4: Determine new cockpit loading limits according to maintenance manual LS4 section 2.3 and enter into the cockpit data placard and in the flight manual.

5. LS4 and LS4-a: Determine new max. mass of non-lifting parts according to maintenance manual LS4 section 2.4.

6. LS4, LS4-a and LS4-b: Determine new max. TOW for flight without waterballast from existing weighing report with new max. mass of non-lifting parts determined under instructions 5 (LS4 and LS4-a) and equation $W_{max} = W_{non} + W_{wings}$, calculate new max. cockpit load and enter in the flight manual and in the cockpit data placard.

7. LS4-b: Check if the placard for "Canopy Emergency Release" is installed according to MM LS4 section 7.3. Install the placard if not existing.

Material : Manuals see instructions 1
These manuals have to be ordered from the TC holder DG Flugzeugbau GmbH.
They are only valid for the aircraft ser.no. printed on the cover page.
Only LS4, LS4-a and LS4-b: Flight manual pages see instruction 2
Only all LS1 variants: all data and limitation placards see instruction 3
Only LS4-b: placard for "Canopy Emergency Release" if not installed

Weight and balance : For instructions 4 up to 6 a new weight and balance report must be produced.

Remarks : The instructions 1 ÷ 3 may be executed by the pilot/owner himself and are to be inspected and entered in the aircraft logs by a licensed inspector at latest with the next annual inspection.

Maintenance or annual inspections are only allowed to be carried out if the valid manuals actually issued for the respective ser. No. are existent.

Instructions No. 4 ÷ 6:

1. EASA countries: The actions have to be performed in a Part -145 approved organisation, or in a Part M, Subpart F approved organisation according to the regulations of the Part M and released according to M.A.801.
2. Non EASA countries: The actions have to be performed in a licensed workshop. All instructions are to be inspected and entered in the aircraft logs by a licensed inspector.

Due to the new manual editions EASA will publish a new TCDS EASA.A.095 with the type designation "LS Sailplanes" which combines the LBA TCDS's 262, 317, 345, 357 and 375.

The existing manuals of the variant LS1-e remain valid.

The new manuals for the LS3 and LS7 variants which are contained in the EASA TCDS too, have already been published with TN 3053 and TN 7016.

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June 15. 2011
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Modifications approved by EASA Date 2.09.2011
under Approval No. 10036360

