Subject : Additional installation of an LS-latch (Röger-hook) to improve the emergency canopy jettison

Effectivity : Type: LS-Sailplanes
Variant(s) : LS4, LS4-a, all serial numbers

Accomplishment : March 31. 2013 mandatory

Reason : Additional installation of an LS-latch (similar to a Röger-hook) to improve the emergency canopy jettison.
The variants LS4 and LS4-a are not equipped with a canopy emergency jettison LS hook as standard equipment. Tests made at LS and by Prof. Röger proved that there is a potential danger for the pilot in case of an emergency bail out if no hook is installed.
In addition the variants LS4 and LS4-a have no device to lift the canopy at the front for jettison. A retrofit of a spring device to these variants is necessary, as the above mentioned tests have shown that such a device is needed for quick canopy jettison.

These safety shortcomings will be resolved by executing this TN.

Instructions :

1. Manual revision:
   Flight Manual:
   Exchange the following flight manual pages against new pages issued May 2011 marked with TN 4032, Rev. 2:
   LS4: pages 0-5, 0-6, 2-2 and 3-4
   LS4 USA edition, LS4-a and LS4-a USA edition: pages 1-1, 1-2, 3-1 and 4-2
   Pay attention to the changes marked in the right hand margin.
   Maintenance Manual:
   All changes with respect to the installation of the LS-latch are included in the revised Maintenance Manual issued May 2011, see TN LS-S-01.
2. Install the LS-latch according to the following documents:
   - "working instructions no. 1 for TN 4032" and drawing BR-157.
3. Install the spring mechanism for the canopy emergency jettison according to "working instruction no. 2 for TN3054 rev.1 and TN4032 rev.2".

Material :

1. Flight manual pages see instruction no. 1
2. Maintenance Manual LS4, issued May 2011
3. Working instruction no. 1, for TN 4032
4. Drawing BR-157 issue f
5. Working instruction no. 2 for TN3054 rev.1 and TN4032 rev.2
6. For a part list, see drawing BR-157 and "working instruction no. 2 for TN3054 rev.1 and TN4032 rev.2".
7. For a list of approved resins and other consumables, see applicable maintenance manual.

Weight and balance : The extra mass due to instruction 2 is approx. 0.1 kg and doesn't shift the C.G..
The extra mass of instruction 3 is approx. 0.3 kg and reduces the min. Cockpit load by approx. 0.6 kg. So the influence is negligible.

Remarks : Instructions no. 1 and 2:

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.
3. Not applicable to LS4-b, as the LS-latch (Röger-hook) is standard equipment and the canopy will be lifted at the front by the instrument panel.
4. As the initial maintenance manuals will no longer be updated it is mandatory to use the maintenance manual see instruction 1 to maintain the glider after this TN has been performed.

Bruchsal, date:
Revision 2 June 27. 2011
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Modifications approved by EASA Date 28.09.2011
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