H. Streifeneder Glasfaser-Flugzeug-Service GmbH Hofener Weg D-72582 Grabenstetten

# Technical Note TN 604-5

Type: Glasflügel 604

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Subject:

Securing of l'Hotelier quick release attachments according to LTA 93-001/2 edited by the

German Luftfahrtbundesamt.

Effectivity:

Glasflügel 604, all serial numbers.

Instructions:

See contents of technical note below.

### 93-001/2 L'Hotellier

Date of issue: April 20, 1994

#### Affected aeronautical equipment: L'Hotellier ball and swivel joints

 all sailplanes and powered sailplanes equipped with l'Hotellier ball and swivel joints with lock plates.

#### Subject:

Inspection and Modification of l'Hotellier quick release attachment

#### Reason:

Reported incidents involving l'Hotellier ball and swivel joints have prompted the LBA to have investigations made as to the operational safety of l'Hotellier ball and swivel joints.

The results have shown that the friction surfaces of the lock plates will be run in and smoothened after a relatively small number of operations. As has been demonstrated in the tests, in this case even normal operating conditions are sufficient under unfavourable circumstances to surmount the static friction (i.e. the lock plates open).

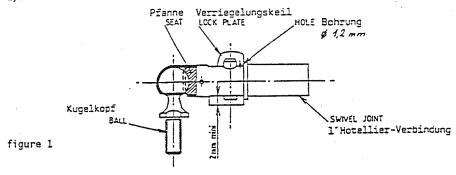
The reason for this AD is a new issue of the L'Hotellier Maintenance Instruction.

### Action and compliance:

Compliance: following actions must be accomplished not later than March 31, 1993

The ball and swivel joints with lock plates must be secured. For this purpose, the following actions are to be accomplished:

1) If the joints are not yet equipped with safety pins (e.g. 1'H 140-31 made by Hotellier), these safety pins have to be retrofitted. In certain cases it may become necessary to rebore the hole in the lock plate, which is provided for visual inspection, to Ø 1.2 mm so that the safety pin can be inserted (see figure 1).



Insertion of a safety pin is not applicable for l'Hotellier ball and swivel joints which are already equipped with other approved locking systems (e.g. Uerlings sleeve or LS-safety sleeve), or if such system are newly installed.

LBA-approved locking systems for l'Hotellier ball and swivel joints are:

- a) Uerlings sleve (no figure)
- b) safety pin (see figure 2 and 2a)
- c) LS safety sleeve (see figure 3)

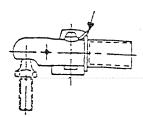




figure 2

figure 2a

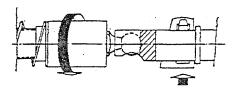


figure 3

Uerlings sleeves (specification number SE-00I/78) as well as LS safety sleeve can only be installed for straight joints and transmissions, but cannot be used for  $90^\circ$  joints.

- Flight Manual
- Section "Rigging"

  a) The recommendation given in several Flight Manuals that the lock plate of l'Hotellier ball and swivel joints "should be secured" is to be deleted and to be replaced by the following sentence:

"The l'Hotellier ball and swivel joint must be secured."

H. Streifeneder	
Glasfaser-Flugzeug-Service Gr	nbH
Hofener Weg	
D-72582 Grabenstetten	

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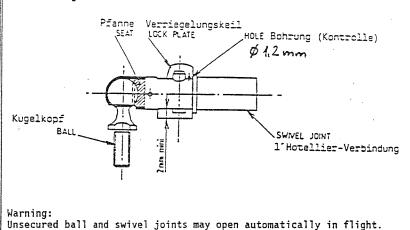
b) If older Flight Manuals do not contain information on l'Hotellier ball and swivel joints, the following paragraph (probably on a new page) is to be included in the 'Flight Manual under the Section "Rigging", if the l'Hotellier joint is or is to be secured by means of a safety pin:

#### Hotellier Ball and Swivel Joints

Prior to installation everyone should familiarize with the functioning of Hotellier ball and swivel joints.

The swivel is to be slid <u>completely</u> over the ball with the lock plate pressed down. During locking the lock plate moves back slightly so that in a correct joint the hole on the narrow edge of the lock plate becomes visible.

The safety pin is to be inserted in this hole thus securing the ball and swivel joint.



These entries in the Flight Manual can be made in writing or as a copy indicating the  $AD-No.\ 93-001$ .

Entry in the list of effective pages is to be made indicating the AD-No. 93-001.

- Maintenance Manual The enclosed Instructions for Maintenance (l'Hotellier, issue E 03/94) become herewith part of the operating instructions and are to be included in the Maintenance Manual for the sailplane or powered sailplane - as far as this has not been done already by the manufacturer of the sailplane or powered sailplane
- 4) All l'Hotellier ball and swivel joints are to be inspected in accordance with the above Instructions for Maintenance. Joints exceeding the allowable tolerances are to be replaced.

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Note: Type-related technical information already published by the manufacturer or by the product support organisation for l'Hotellier ball and swivel joints become part of this AD.

Aviability informations:

- l'Hotellier: safety pin reference no. L'H 140-31 others: safety pin ø 1,2 mm Ford reference no. 1473 931 (worldwide) pins are aviable from manuafacturers or product support organisations for the sailplane or powered sailplane types concerned

Accomplishment and log book entry: Action to be accomplished by an approved service station or an authorized person and to be checked and entered in the log by a licensed inspector.

Note: This Airworthiness Directive supersedes AD-No. 93-001 dated March 03, 1993.

LBA-approved:

Grabenstetten, 11.02.96.

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H. Streifeneder