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**WEIGHT AND BALANCE:** Not Affected

**IMPLEMENTATION:** Action A: During every Daily Inspection until Action B has been accomplished.

Action B: During the next scheduled maintenance action, but in any case not later than 31 December 2004.

**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.

<b>STEMME</b> F & D Design Org.	<b>Service Bulletin</b>		Document Number: <b>A31-10-069</b>
	<b>Connections in the Control System S10</b>		Am.-Index: 01.a
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*This Service Bulletin provides from page 1 to 3 the original version in German, approved by the Luftfahrt-Bundesamt, and from page 4 to 6 a translated version in English. The translation has been performed to the best of our knowledge and judgement.*

## **1 Subject:**

1. *Inspection of the joint between the aileron control rod 10SQ-RMB and the connecting shaft 10SQ-RMW.*
2. *Inspection of all control system joints with circular caulked hinge or ball bearings.*
3. *Safety washer in the aileron system: Inspection of existence / if necessary installation*

## **2 Affected Powered Sailplane:**

*Type STEMME S10, all models, LBA Type Certificate No. 846, FAA Type Certificate No. G06CE/G58EU*

- |                     |               |  |
|---------------------|---------------|--|
| 1. affected S/N:    | model S10-V:  | 14-004 through 14-030,                         |
|                     | model S10-VT: | 11-001 through 11-089                          |
| 2./3. affected S/N: | model S10:    | 10-03 through 10-56;                           |
|                     | model S10-V:  | 14-001 through 14-030,                         |
|                     |               | all converted versions 14-003M through 14-056M |
|                     | model S10-VT: | 11-001 through 11-089                          |

## **3 Time of compliance:**

- Action 1: *Every daily inspection until the actions 2 and 3 have been performed.*
- Action 2/3: *During the next scheduled maintenance action, but not later than Dec. 31, 2004.*

## **4 Background Information:**

*A control lever with a loose bearing was found during the production of the powered sailplane S10. The following inspection of other levers has shown that a bearing may become loose during the operation of the powered sailplane.*

*Except for one connection, all the other connections between push-rods and levers are held in a fork-design that does not allow the joints to disengage due to a loose bearings. It is normally possible to find a slack bearing during the scheduled maintenance of the aircraft. A typical indication for a slack bearing is that it sticks out of its supporting lever.*

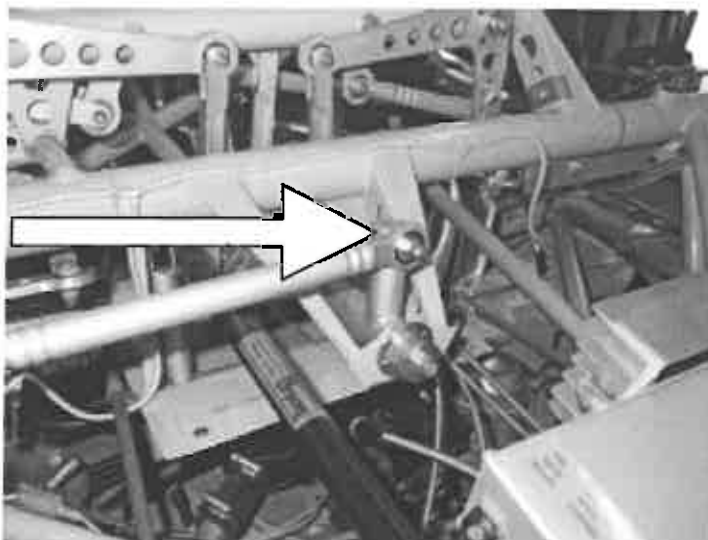
*The only joint which may completely disengage due to a loose bearing is the connection between the aileron control rod 10SQ-RMB and the connecting shaft 10SQ-RMW.*

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## 5 Actions:

### 5.1 Inspection of the joint between the aileron control rod 10SQ-RMB and the connecting shaft 10SQ-RMW

The hinge bearing of the joint between the push-rod and the connecting shaft must be inspected for correct position and tight fit. This must be done during each daily inspection and after removal of the upper fuselage fairing.



### 5.2 Inspection of all control system joints with circular caulked hinge or ball bearings:

All connections in the control system with circular caulked hinge or ball bearings must be inspected. The following versions are affected:

- Joints between push-rods and control levers in fork-design
- Control-rods with eyebolts for hinge or ball bearings

All connections must be visually inspected in order to assure that the bearing is in middle of the part where it is installed.

If the part is accessible by hand, it should also be manually checked with a hand force of round about  $\pm 4$  kg.

### 5.3 Safety washer in the aileron control system.

The connection between the aileron push-rod 10SQ-RMB and the connecting shaft 10SQ-RMW must be secured by a safety washer with a diameter of 20mm (0.79 in.) [DIN 440-06]. This washer prevents a separation of the aileron control system in case of a loose bearing.

It must be checked whether this safety washer is installed.

This safety washer was not a serial standard for the models S10-V and S10-V and it has still to be installed. For this purpose the joint must be disassembled. The existing bolt must be replaced by the bolt (LN9037-06042) of the modification kit. A washer 10M-282 and another safety washer D440-06 must be installed opposed to the flight direction.

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version: steel control system

model S10: 10-03 through 10-56  
model S10-V: 14-001 through 14-003  
14-003M through 14-056M



version: aluminium control system

model S10-V: 14-004 through 14-030  
model S10-VT: 11-001 through 11-089

## 6 **Mass and balance:**

*Not affected.*

## 7 **Associated documents:**

*Maintenance Manual of the affected model.*

## 8 **Accomplishment and log entry:**

An authorised mechanic may carry out the actions described in this service bulletin.

The completion of this SB must be checked and entered in the airplane's log book by a licensed inspector.  
The regulations on the keeping of service records must be adhered to.

(End)