



## SERVICE BULLETIN MSB 315-72 SERVICE BULLETIN MSB 869-23

### I. TECHNICAL DETAILS

#### 1.1 Category:

Mandatory

#### 1.2 Aircraft affected:

G103 TWIN II	Serial-No. 3501 - 34078
G103A TWIN II ACRO	Serial-No. 3544 - 34078 (with suffix „K“)
G103C TWIN III ACRO	Serial-No. 34101 - 34203
G103C TWIN III	Serial-No. 36001 - 36014
G103 TWIN III SL	Serial-No. 35001 - 35051

#### 1.3 Time of Compliance:

Next Annual Inspection, but not later than 31. December 2006, whichever comes first.

#### 1.4 Subject:

ATA-Code:	55-00	Stabilizer
	55-40	Rudder

#### 1.5 Reason:

A broken upper rudder hinge on a TWIN III ACRO, detected during pre-flight inspection – was reported to GROB. The metallurgical investigation of the hinge indicated the typical crack pattern of a bending fracture. The crack pattern also suggests earlier damage, possibly caused by bending and forced bending back. As a cautionary measure to preclude any risk, a visual inspection of the upper rudder hinge is mandated. Any findings shall be reported to GROB, so that additional action may be taken as required.

TWIN II; TWIN II ACRO; TWIN III; TWIN III ACRO; TWIN III SL

### **1.6 Concurrent documents:**

Repair Instruction RI 315-72

### **1.7 Approval Note:**

The technical information contained in this document has been approved under the authority of EASA Design Organisation Approval No. EASA.21J.030.

### **1.8 Accomplishment/ Instructions:**

- 1.8.1. Check rudder for excessive play in the upper rudder hinge before removal. Permissible radial play: Minimum 0.01mm, Maximum 0,08mm.
- 1.8.2. Remove rudder, store rudder on suitable support.
- 1.8.3. Visually inspect (magnifying glass 1:10) upper rudder hinge, in particular area marked in fig. 1. Check for cracks in the welding seam.



**Abb. 1**



**Abb. 2**

**Note:** Capillary fissures may be observed between rudder hinge and surrounding GRP, this is entirely normal, since metal and GRP do not form a homogeneous structure.

- 1.8.4. Damaged or bent rudder hinges shall be exchanged in accordance with Repair Instruction RI 315-72. Bending back of hinges is not approved.
- 1.8.5. Install rudder after repair, or in case no damage was observed. If excessive play was noted in 1.8.1., install rudder with new DU-bushings.
- 1.8.6. Check rudder full and unrestricted range of movement.
- 1.8.7. Manually amend Maintenance Manual, section "Periodic Inspection": Comply with SB 315-72, steps 1.8.1 through 1.8.6.
- 1.8.8. Any hinge found damaged, return to GROB, advise aircraft serial-number.

TWIN II; TWIN II ACRO; TWIN III; TWIN III ACRO; TWIN III SL



**1.9 Repetitive Actions:**

Repeat steps 1.8.1. through 1.8.6. during each Annual Inspection.

**1.10 Mass (Weight) and CG:**

N/A

**II. PLANNING INFORMATION**

**2.1 Material & Availability:**

Item	Description	Part-number	Qty. / aircraft
1	RUDDER - HINGE	103B-3177	1

**2.2 Special Tools:**

N/A

**2.3 Labour costs:**

- 2.3.1. Inspection: 1 hour
- 2.3.2. Repair: i.a.w. RI 315-72

**2.4 Reference documents:**

Maintenance Manuals: TWIN II; TWIN II ACRO; TWIN III; TWIN III ACRO; TWIN III SL

**2.5 Credit:**

N/A

TWIN II; TWIN II ACRO; TWIN III; TWIN III ACRO; TWIN III SL



### **III. REMARKS**

- 3.1 The correct execution of the inspection may be performed by a competent person. The repair, if required, shall be completed by an authorised aviation workshop. Both, inspection and repair have to be certified in the logbook by an authorised inspector.
- 3.2 Any damage shall be reported to GROB
- 3.3 If you have sold your aircraft in the meantime, would you kindly pass this information on to the new owner and forward his address and aircraft S/N to us..
- 3.4 For questions and assistance please contact:

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