European Aviation Safety Agency

Ingenieurbüro Calsbach UG LBA.CAO.9035 DE.CAO.0015	Doc SB STC 10070970-1 Issue 09.08.2022

Service Bulletin SB STC 10070970-1

Log of issues		
Issue	Issue date	Change description
001	09.08.2022	Initial issue

1. Planning Information

1.1 Effectivity

LS4 and LS4-a, all Serial Numbers on which the modification acc. STC 10070970 is installed

LS6, LS6-a and LS6-b all Serial Numbers on which the modification acc. STC 10070970 is installed

1.2 Reason

On one of the affected series (LS4), the connecting device of the airbrake control rod broke in the area of the root rib due to incorrect assembly (a thread was drilled off-center). Since it cannot be ruled out that the threads for the ball heads on other aircraft were also drilled off-center and thus incorrectly, this Service Bulletin is published.

To address this potential unsafe condition, the affected part must be replaced by a new part (new parts do not have external threads and can therefore be identified) with the Part Number R13-72 und R13-73, delivered by the STC holder Ingenieurbüro Calsbach UG or DG Aviation GmbH as complete modification set.

1.3 Compliance

Mandatory: Ingenieurbüro Calsbach UG considers this Service Bulletin to be Mandatory. Accomplish this Service Bulletin according the corresponding EASA Airworthiness Directive.

1.4 Approval

The technical information contained in this Service Bulletin has been approved by EASA with approval number STC 10070970 REV. 2

Name / Function	Date	Signature
Office of Airworthiness		

It is the operators responsibility to comply with the relevant aviation regulations of the country in which the product is registered and operated.

1.5 Special Tools

See chapter 3

1.6 Weight and Balance

Not affected

1.7 Electrical Load Data

Not affected

1.8 Other Publications affected

Installation instructions for STC 10070970 on LS4 and LS6 series gliders will be revised

1.9 Reporting

Not affected

2. Material Information

2.1 List of parts to be reworked

See Chapter 3

2.2 New Production Parts

The set of modified devices, 2 pieces Part No. R13-72 and 2 pieces Part No. R13-73 and also 8 pop rivets, type Blindniet Tucker 4x6 and 8 pop rivets, type Blindniet Tucker 4x10 are needed and will be delivered in one complete modification set by DG-Aviation GmbH or Ingenieurbüro Calsbach UG.

2.3 Expendable Parts

Not affected

	Name / Function	Date	Signature
Prepared	_____ Office of Airworthiness		

It is the operators responsibility to comply with the relevant aviation regulations of the country in which the product is registered and operated.

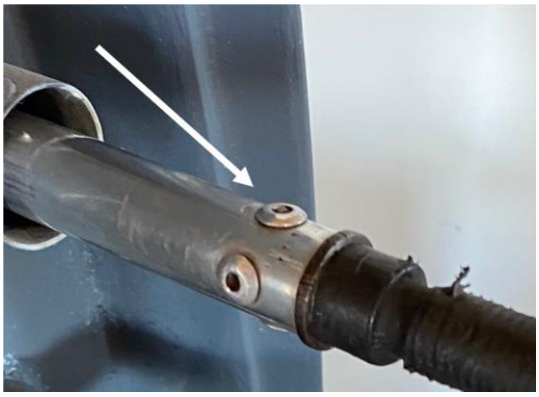
3. Accomplishment Instructions

CAUTION: Obey the safety Precaution and the General Maintenance Practices.

3.1 Acquired necessary parts, tools, equipment and supplies

Description	P/N	Supplier	Purpose
No. 2 Aileron connecting device	R13-72	DG Aviation GmbH Ingenieurbüro Calsbach UG	For replacement
No. 2 Air brake connecting device	R13-73	DG Aviation GmbH Ingenieurbüro Calsbach UG	For replacement
No. 8 rivets	Blindniet Tucker 4x6	DG-Aviation GmbH Ingenieurbüro Calsbach UG	For fixing the connecting devices
No. 8 rivets	Blindniet Tucker 4x10	DG-Aviation GmbH Ingenieurbüro Calsbach UG	For fixing the connecting devices
Drilling machine	-	Any Source	For drilling the rivets
Steel drill diameter 4mm	-	Any Source	For drilling the rivets
Steel drill diameter 4,1mm	-	Any Source	To drill new holes in the connector devices
Wrench SW 10	-	Any Source	To remove and install the ball joints
Riveting pliers	-	Any Source	For riveting the connector devices
UHU PLUS SCHNELLFEST	-	Any Source	For glueing the devices into the rods
Loctite Typ 243	-	Any Source	For fixing/securing the ball heads

3.2 Drill out the found, riveted-in connection devices (the existing ones with the external thread) with the drill and the steel drill, diameter 4 mm. Be very careful when doing this, because later the newly supplied and modified connection piece will be inserted and riveted in the same position.



Picture 1: Installation situation old fittings

3.3 Now pull the respective connection device out of the control rod. The old connection heads are glued in the push rods by epoxy resin. To loosen this bond, it may be needed to use a heat gun to heat the connection head to max 100° C., before pulling out the head from the push rod. When doing so, make sure that the ball head is not damaged, as this will be used again later.

3.4 Clamp the old fittings and unscrew the ball head from the old fitting and set it aside.

3.5 Now insert the supplied new connecting devices into the control rods, accurately mark the position of each of the four holes on the new connection devices. Take out the head and drill new holes in connecting devices, using a column drill, with a 4,1mm diameter steel drill (HSS).

3.6 Clean, degrease and insert the connecting devices into the control rods using epoxy adhesive (UHU PLUS SCHNELLFEST) and rivet them in place using the rivets supplied. Make sure that no epoxy adhesive gets into the threaded holes of the new connecting devices.

3.7 Now clean the threads of the previously unscrewed ball heads from hard Loctite of the first assembly. This works very well with a small brass wire brush as it is also used for cleaning spark plugs.

3.8. After complete curing of the UHU PLUS SCHNELLFEST screw the old ball heads, with a thin film of Loctite Typ 243 applied to the threads, into the new fittings that have just been riveted in place.

3.9. Now rig the glider and check the aileron deflections and the over centre lock of both the airbrakes.

3.10 After completion of all work, the execution of the tasks must be documented in the operating records and released in the aircraft logbook. The execution represents a complex maintenance in the sense of the regulation EU 1321/2014 part ML and may be released by cerifying staff acc. to appendix 3 Part ML.