



AIRWORTHINESS ADVICE NOTICE

TYPE AFFECTED: Standard Austria SH1.

SUBJECT: Miscellaneous airworthiness information.

BACKGROUND: This AN records airworthiness information which is useful to know.

DEFECTS: Two manufacturers Technical Notes from the 1960s have been found on file which it appears were never distributed. Because of the long time since they were issued it is unlikely the faults have occurred in the Australian registered Standard Austria SH1 however the text has been reproduced here to ensure that operators are aware problems have occurred in these parts.

Revision 10

Subject: Spring clamp for additional safety to prevent shirting of two pulleys of rudder control cables in the cage on fuselage bulkhead No. 1.

Cause: It happened in one case that the ball-bearings of above mentioned pulleys-became loose. The result was an insufficient guide of the rudder control cables. Since the pulleys are kept in place only by a bushing between the internal ball-bearing rings, measures are to be taken to keep the entire pulleys in place.

Measures: In order to avoid the rather difficult removal of the pulley cage in the fuselage nose, a spring clamp has been provided, which is but to be inserted onto the bushing between the ball-bearings of the pulleys.

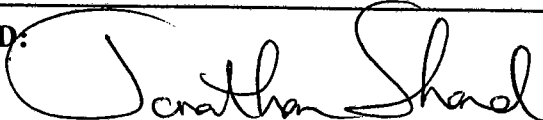
By taking off the cover panel of the control stick area, accessibility to the pulleys is given through the cut-outs in the front bulkheads.

Follow the instruction of the Figure 3, which belongs to this revision.

Revision No. 10 refers to all sailplanes of the model
STANDARD AUSTRIA S, SH, SH1

Date: 10th February, 1967

SIGNED:


CHIEF TECHNICAL OFFICER AIRWORTHINESS

For and on behalf of:

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OF AUSTRALIA

Note: Schempp-Hirth or their Australian agent should be contacted to obtain the spring clamp.

Technical Note 12

Subject: Glue joint between the bulkhead on the fuselage tail end and the lower half of the fuselage plywood shell.

Effectively: Sailplane mode STANDARD AUSTRIA S, SH, SH1 L-235.

Accomplishment: Before the next flight.

Reason: The bulkhead on the fuselage tail end, which carries the rudder steel tube spar and the tail skid, has been broken off from the fuselage plywood shell due to a crash landing. Inspecting the break it was observed that the lower area of the glue joint between the bulkhead and the fuselage shell must have been damaged a long while before the crash occurred, due to a very rough landing on the tail skid.

Instructions: Take off the fuselage tail cone. Remove the flat head screws which attach the cone onto the tail bulkhead. Remove also the connection bolts of the rudder and trim tab, the rudder bolts by removing the small attachment bolt on the control lever head and the trim bolts by loosening the counter nut and screwing off the bolt.

Check the glue joint between the tail bulkhead and the lower half of the fuselage plywood shell for cracks, using a knife blade. Move the steel tube V-spar at its tips sharply back and forth and observe the shell-bulkhead joint

Remarks: In the case of a failure the sailplane is not considered airworthy until the repair has been made and approved by a designated inspector.

The visual inspection, as described under "INSTRUCTIONS", must be carried out after rough landings and during the annual inspections.

To facilitate the remove of the tail cone for further inspections, it is advisable to cut slots into the cone for the protruding bolts to pass through, as on later models SH1 and on the SHK.

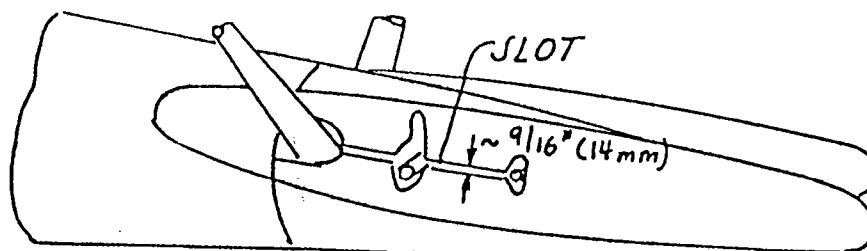


FIGURE 1 INSPECTION SLOT

Repair instructions in case of glue joint failure of the fuselage tail bulkhead.

Take off the tail cone.

Detach the tail bulkhead from the fuselage shell. Disconnect the tubular frame which carries the trim device. Disconnect also the rudder push-pull rods.

In order to avoid the disconnection of the trim control cables, try to displace the tubular frame such, as to be able to pull the bulkhead out of the fuselage shell as far as possible to allow cleaning and sanding all glue joint areas of the bulkhead, the longerons, and the shell. For better accessibility displace the bulkhead in turns up, down, and sideways.

After sanding and cleaning glue in the bulkhead using Epoxy glue mixed as per the manufacturer's instructions.

Coat the glue joint surfaces with the glue and make the joint immediately. Use nail strips for holding down the shell during the hardening process.

After the hardening of the glue joint reinforce the bulkhead-fuselage joint by means of two glass cloth layers (at least 3 inches wide) bonded with epoxy resin.

Apply the resin and put on the first glass cloth layer with diagonal weave direction and follow with the second layer. each layer must be thoroughly penetrated with resin (no white spots should show).

Let the laminate harden (about 10 hours at room temperature).

Sand the reinforcement until a smooth surface is attained and paint the surface using any white resin lacquer.

Attach again the push rods and the trim frame Using new stop nuts which will be furnished together with the gluing materials.

Reinforce glass cloth layer bonded on around the edge .

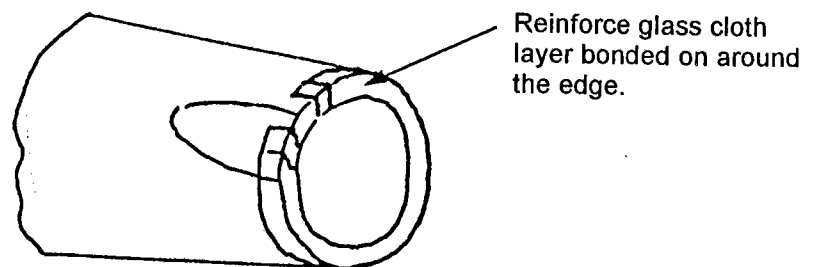
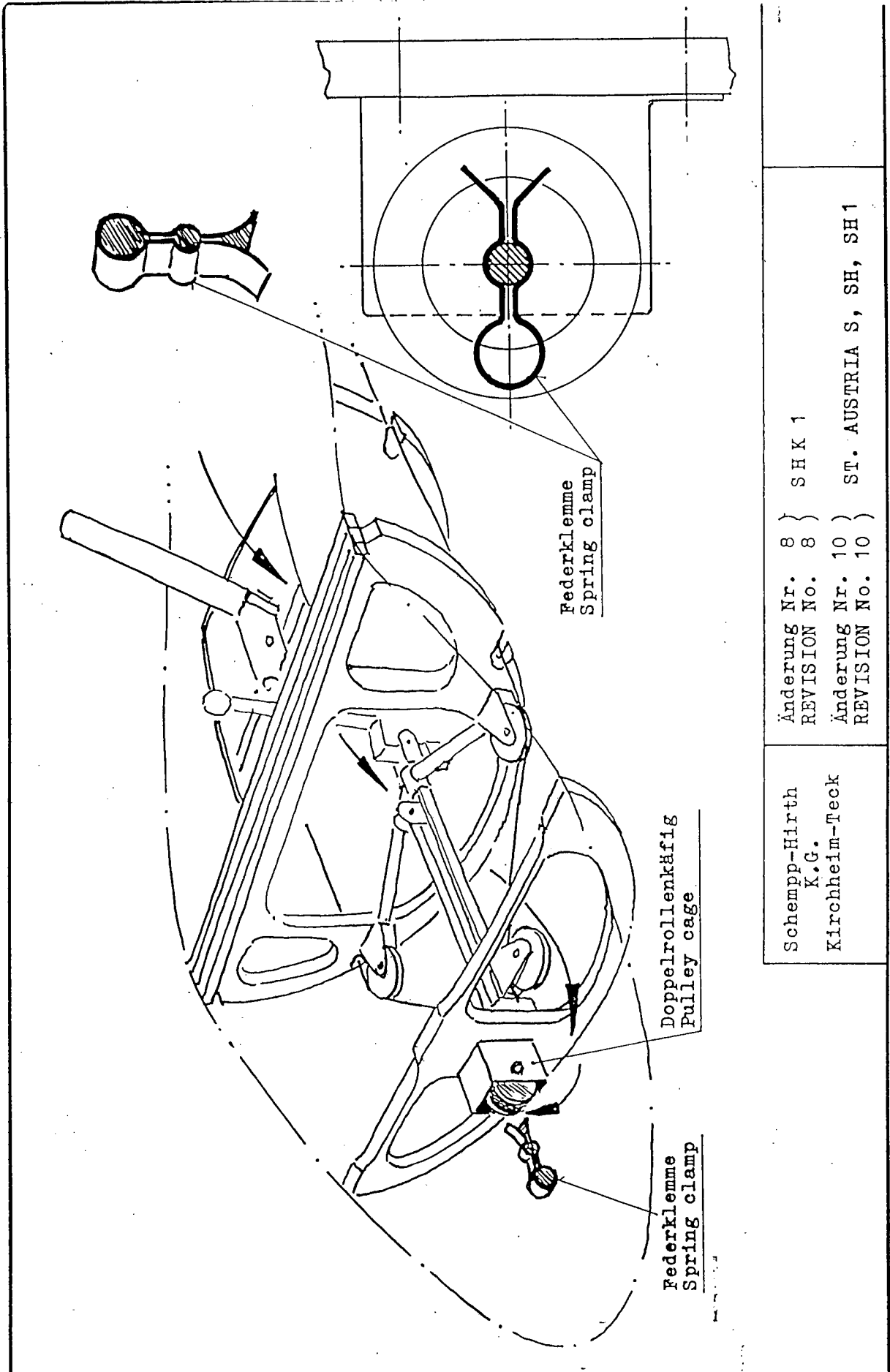


FIGURE 2

FIGURE 3



Änderung Nr. 8 } SH K 1
REVISION No. 8 }

Änderung Nr. 10 } ST. AUSTRIA S, SH, SH 1
REVISION No. 10 }

Schempp-Hirth
K.G.
Kirchheim-Teck