



AIRWORTHINESS ADVICE NOTICE

TYPE AFFECTED: Standard Cirrus all variants.

SUBJECT: Miscellaneous airworthiness information.

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

APPROVED MODIFICATIONS:

1. Tow Release Knob Relocation.

Schempp Hirth technical note 278-8 describes the optional relocation and installation of a plastic "T" handle type release knob. Parts and drawings are available from Schempp Hirth or their Australian Agent.

2. Nose Release Installation.

A nose release may be installed in accordance with Schempp Hirth Technical Note 278-37 drawings 10.001A3, 10.098 and 10.082. Parts and drawings are available from Schempp Hirth or their Australian Agent. This technical note and revised Flight and Maintenance manual pages are available from GFA secretariat on request.

3. Water Ballast System Modifications.

Schempp Hirth technical note 278-14 describes the optional improvements to the water drain system. This technical note is available from Schempp Hirth or their Australian Agent.

4. Improved Wheel Brake Effectiveness.

Schempp Hirth Technical Note 278-24 describes the optional installation of a TOST "Kobold" Wheel with a more effective brake. This technical note is available from Schempp Hirth or their Australian Agent.

SIGNED:

for 
CHIEF TECHNICAL OFFICER AIRWORTHINESS



For and on behalf of:

**THE GLIDING FEDERATION
OF AUSTRALIA**

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5. Modification to Standard Cirrus G.

Schempp Hirth technical note 278-29 describes the optional modification to Standard Cirrus G (with a tailplane and elevator). This technical note is available from the GFA secretariat on request.

6. Modification to Standard Cirrus B.

Schempp Hirth technical note 278-31 describes the optional modification to Standard Cirrus B (with Extended wing tips). This technical note is available from the GFA secretariat on request.

7. Improved Dive Brake Effectiveness.

Schempp Hirth technical note 278-32 describes the optional installation of an extra panel on the dive brakes. This technical note is available from the GFA secretariat on request.

8. Wedekind sleeves.

Schempp-Hirth technical note 278-35 describes the optional installation of "Wedekind" safety sleeves for safetying of L'Hotellier couplings instead of the conventional safety pins. This technical note is available from the GFA secretariat on request.

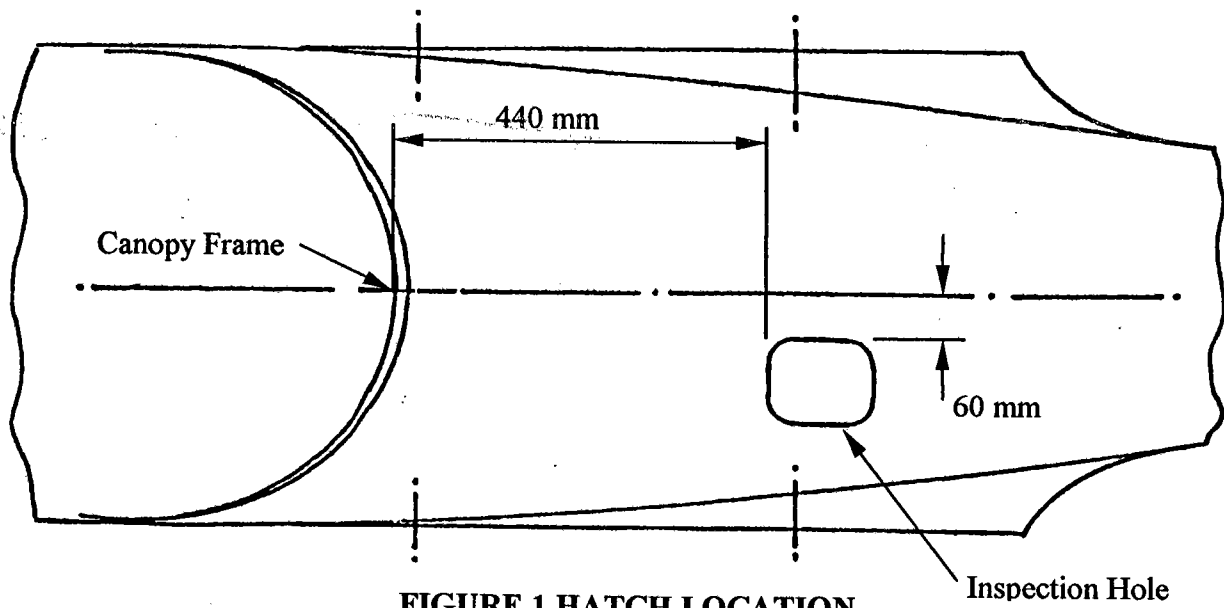
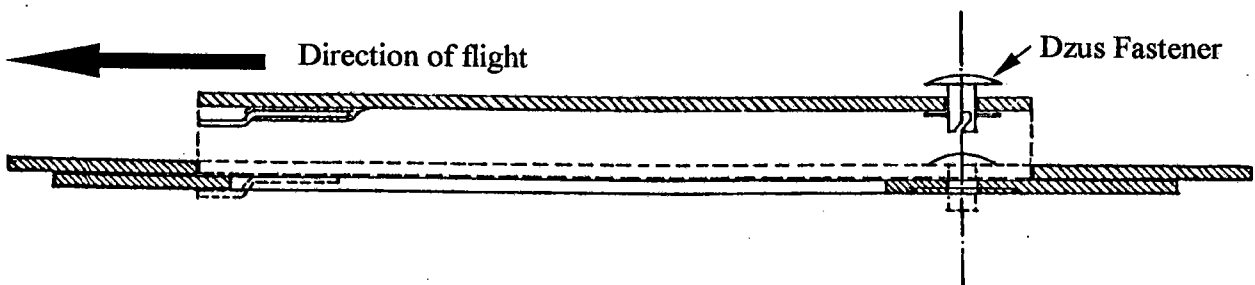
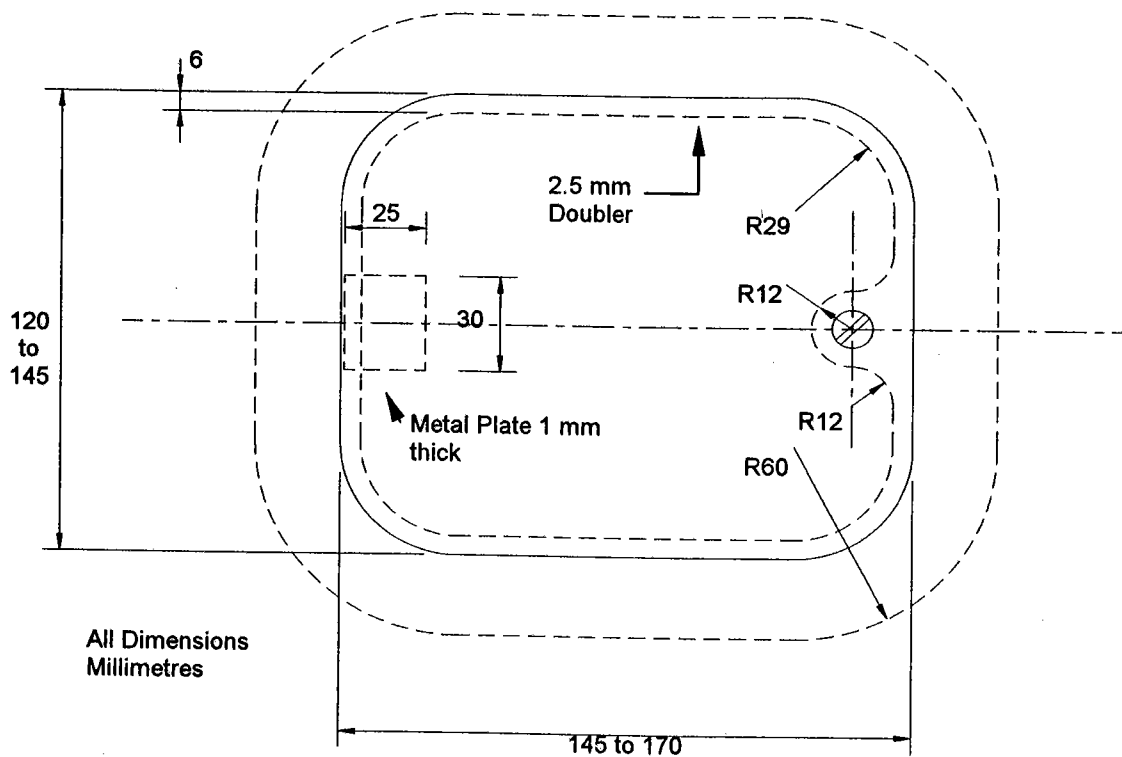
9. Installation of an access hatch for the connection of the l'Hotellier couplings.

This modification is strongly recommended by the GFA as it allows easy access to the control connections reducing the possibility of incorrectly assembled controls.

Assembly Method:

- a) Mark out the hole to the dimensions and locations shown in Figure 1.
- b) Using the fuselage outer skin as a mould laminated a 2.5 mm thick Fibreglass plate over the area where the cut out will be made. This will be cut to shape and used as the reinforcing doubler.
- c) Cut out the panel taking care not to damage the panel as it will be used as the cover (use a fine jig saw).
- d) Cut the doubler to shape and glue it into place.
- e) Glue the metal plate to the cover and install a Dzus fastener to retain the cover.

Installation of this modification must be done by persons rated for Minor Repairs FRP.

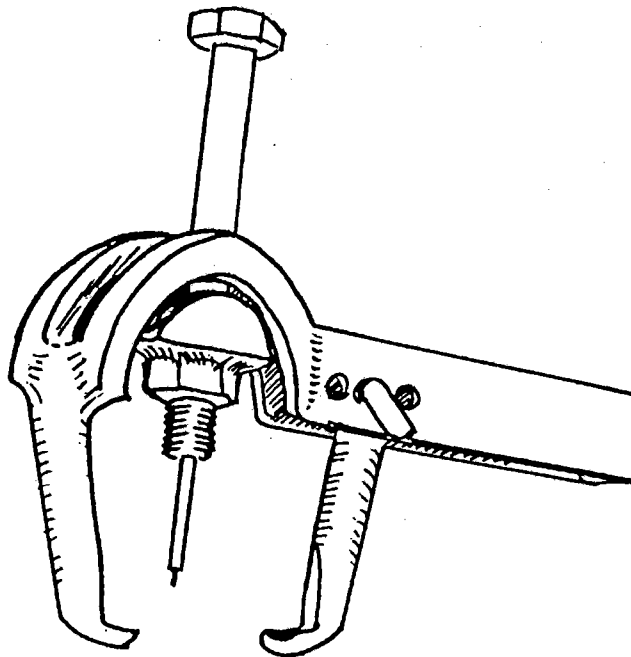
**FIGURE 1 HATCH LOCATION****FIGURE 2 HATCH CONSTRUCTION AND RETENTION****FIGURE 3 HATCH DIMENSIONS**

DEFECTS:

1. Upper Rudder hinge. At least one case has been reported of the upper rudder hinge delaminating. As the upper and lower hinges are connected by a rod of metal which is laminated to the full height of the fin failure of the hinge is unlikely however care should be taken when inspecting all control surface hinges.

MAINTENANCE TIPS

1. Hinge roll pin removal. The most common method of removing the ailerons is by use of a hammer and pin punch. Unless a proper dolly is used to react the forces this type of impact can be quite damaging to the hinge and its attachment to the main structure. The following sketches have been offered by an inspector as an alternative tool for roll pin removal, which does the job quite well and may prevent delamination of hinge attachments.

**FIGURE 4 HINGE PIN REMOVER**

The main problem is that the holes in the pins are individually drilled and are at all sorts of angles, hence the curved arch of the tool and the bolt in the trunnion so that the individual roll pin angle can be duplicated by the tool.

A secondary problem is that not all the hinge pins are the same length so that the tool-must cater for differing spans of hinge. The feet of the tool must slip and hold under the different sized ends of the pins. One foot of the tool (the foot in the handle) has to be loose so that it can be inserted below the end of the hinge pin first and then the main body of the tool presented to it, the foot then being secured to the body by a pin (a bent nail in the prototype). It is fiddly as the aileron/elevator also has to be held at the correct angle so that the roll pin being removed does not pierce the control

surface shell. Once the roll pin is moving it slides out very easily under the positive action of the bolt thread turning.

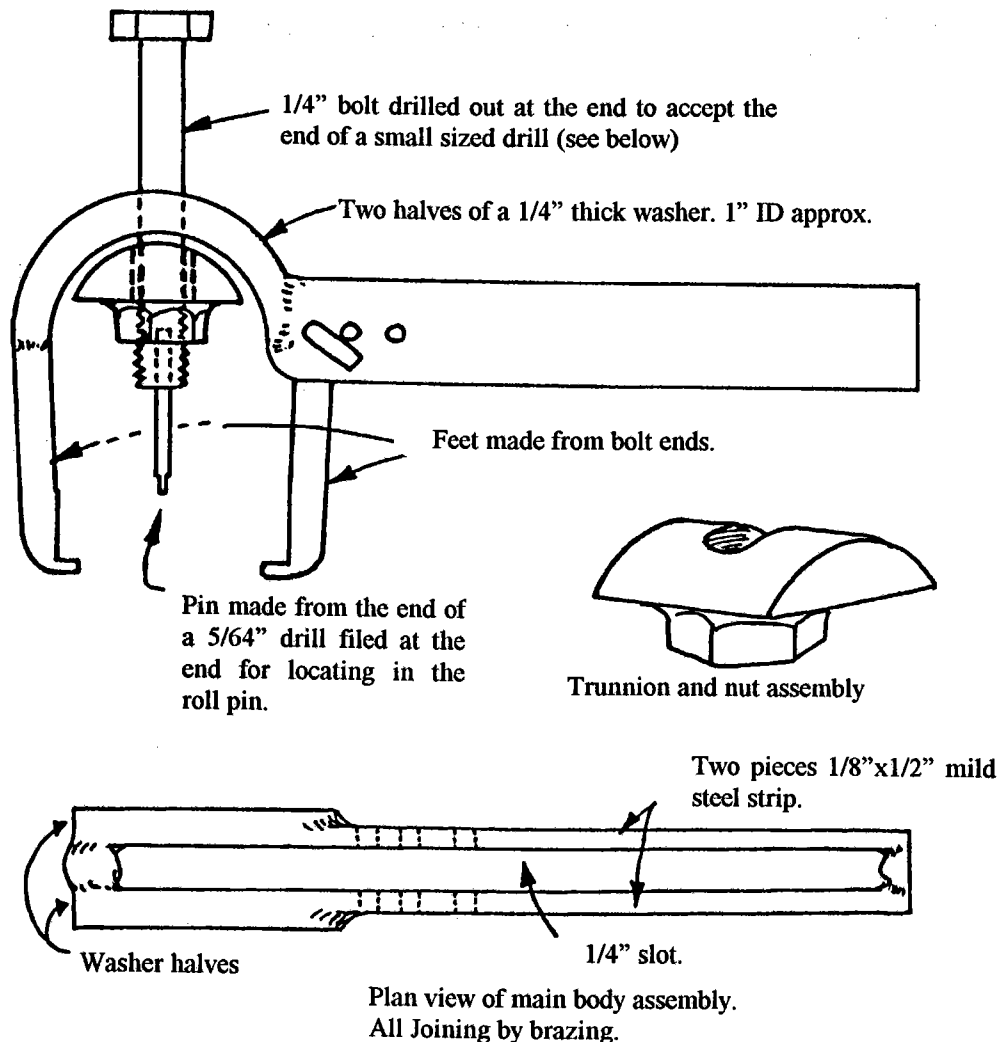


FIGURE 5 REMOVER TOOL DETAIL

The tool has to span differing hinge lengths of 30 mm, 35 mm and 42 mm. The holes in the main body assembly are drilled to suit these spans.

The feet are chiselled out at the 'instep' to suit the diameters of the hinge pin ends otherwise they will slip off when the bolt is being wound down and damage the aircraft finish. For Roll Pin insertion use another bolt in the tool with a flat ground end.