

Subject: Re: [c-a] Roll-over protection

Date: Tue, 4 Jan 2000 09:32:07 -0500

From: Art Bianconi <british-biplane@juno.com>

To: kclunis@gte.net

CC: Canard-Aviators@canard.com

[The Canard Aviators's Mailing list]

In case, the short version is that when my plans canopy got destroyed, I built a two piece unit. The front half pivots on the canard bulkhead using cabinet hinges and standard hold down clamps. The back "half" hinges like the plans version. In between is a "D" section that is the full width of the fuselage. The front canopy was made from a one piece blown for the Cozy canopy. It too is full width and the amount of room I have and visibility is remarkable. The D section was built on the existing flat plate that forms the pilots back rest (It's the same place that the ridiculous V shaped head rests used to sit. BTW, Rutan's comments notwithstanding, the original plans sets, of which I have several copies, call it a roll over device, not a head rest.)

The "D" section was built up by taking a flat piece of aluminum and attaching it to the flat area behind the pilot with clikoes. If installed like mine, yours will look like a D laid on the flat side and about one half inch narrower per side than the fuselage. The flanges and the clikoes that secure the aluminum are inside the D. Then using BID and Uni, build up a roll bar, using the aluminum D section as a form. Apply peel ply to the last layer. When dry, remove the peel ply, flox the area and apply 1/4" thick high density red foam and clamp in place while it cures. The red foam is narrower than the previous layer of BID by one inch front and back, thus forming a lip against which the canopies will seal. When dry, apply more bid, another layer of core, etc until you have built up the D section to about 2-3" (It's out of reach and I can't measure mine) in thickness. The lips for and aft will now be about 3/16" thick and plenty strong enough to bare the pressure of seals when the canopies are clamped.

One advantage of this setup is that the passenger is not trapped inside the plane in the event the pilot is unconscious, incapacitated or worse. It does mean redesigning the canopy closure device. Another is that if you forget to clamp the front canopy shut, you can still fly the plane.

There's more to this, much more, but I don't have time now I'm afraid.

Sorry there are no provisions for diagrams or photos. A picture would be better.

Have fun.

Art Bianconi

On Sun, 2 Jan 2000 12:11:58 -0500 "Ken Clunis" <kclunis@gte.net> writes:

>

> Request for design help or ideas

>

> I was just talking to a fellow LE pilot who is rebuilding his LE

> following

> an off field landing many years ago.... Tifft, Howie and his wife

```
->>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>-|-  
                                     \ /  
-For details on sponsors of this list, copyrights, and how to remove  
-yourself from this list, please visit:
```

(c) 1997, 1998, 1999 Canard Aviators. support@canard.com