RV6 & RV6A Seat Back Brace Modification - Tilt Up Canopy

New Seat Back Brace Installation

1. Remove all screws, bolts and any wiring from current F-605F cross channel between the side gussets.



2. Mark and cut the F-605F cross channel flush with side gussets.



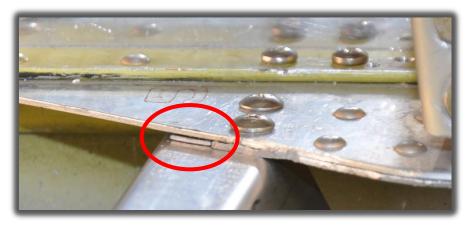
3. Bend rear channel leg level with the F-657 side gusset.



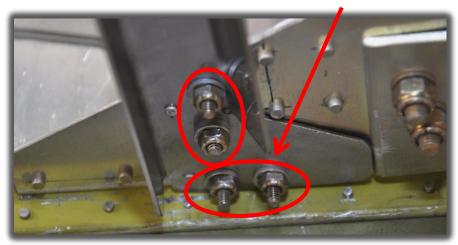
4. Clamp the new cross channel in place to determine longeron rivets that need to be drilled out. In the picture below #8 machine screws show which rivets had to be taken out for this installation. Drill out rivets.



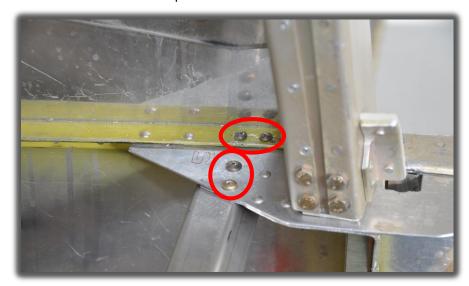
5. Cut a shim from the old cross channel, to hold the new cross channel level to the F-657 side gusset. Rivet this shim to the new cross channel before installing the channel.



6. Clamp new cross channel into position and drill four #21 holes through all pieces – both ends. Two through the longeron and two through the F-657 side gusset. NOTE: Watch edge distance! If the original rivet holes are too close to the end of the new channel to be usable, new holes will need to be drilled.



7. Bolt new cross channel into place with #8 machine screws.

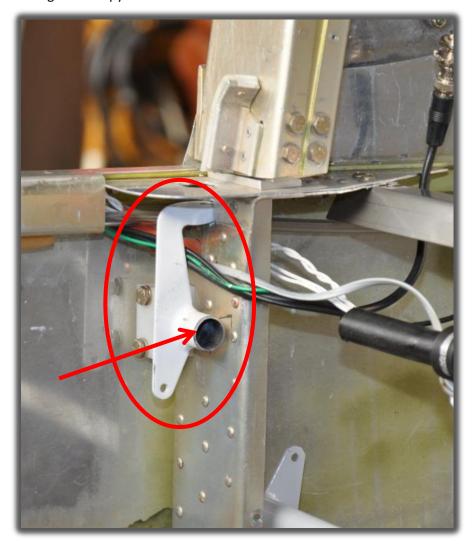


New Canopy Locking Mechanism

8. Buy four new Mounting blocks (part #: C-611 Bushing Block) and one new Canopy Latch Bar Assembly (part #: WD-617-PC) from Van's to complete the new locking mechanism.



9. Cut original Canopy Latch Bar 1" inboard from the latch hook on both sides.



10. Mount the new C-611 blocks to support the locking hooks on both sides. To insure a smooth movement of the locking hooks use caution to ensure that they are lined up with the original blocks.

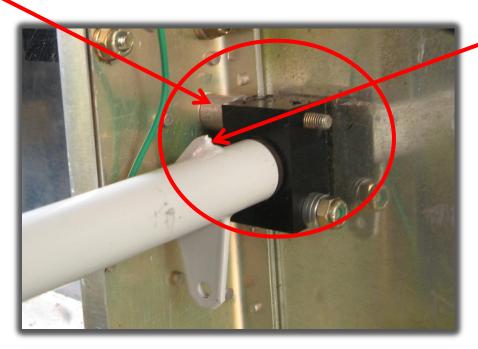


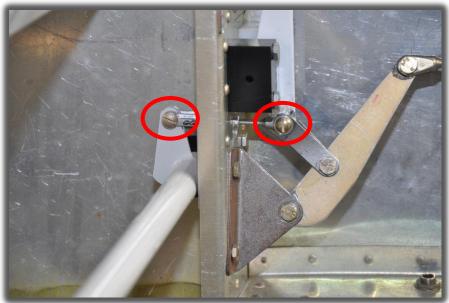
11. View of finished new block installation. (Port Side)





12. Mount two additional mounting blocks behind the F-605 Bulkhead to hold the new WD-617-PC canopy latch bar. These will be mounted below the original Locking Hook blocks and held behind the channel edge with spacers. Modify the newly purchased WD-617-PC Canopy Latch by cutting the locking hooks off and mount in the shown location. When the bar is mounted, and the remaining piece of the hook is placed in an upright position, the hole should be horizontal to the hole in the old modified hook that is mounted on the front.





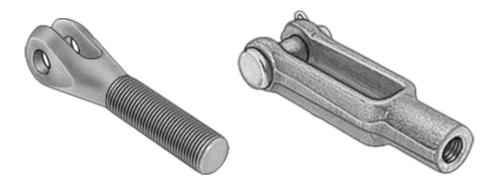
13. Drill a 1/2" hole in the channel directly between the holes in the new modified canopy latch and the modified front latch to facilitate placing a linkage between the Locking Hooks and the new Canopy Latch Bar. (Both Sides.) Connect new Canopy Latch Bar and Old Modified Canopy Locking Pin with the linkage pieces described in #14. Adjust the linkage until it is horizontal when the latch is in the closed position.







14. Build the two linkage pieces from male and female fork rod ends. This will allow for adjustment. (Recommended part #'s: AN-161-10-32 Fork Turnbuckle & AN-486-10-32 Clevis)



15. Install new angle and motor channel cap (both provided) on the old vertical and angled channels.



16. Cut new slots in the flap motor tower side panels to fit the new WD-617-PC Canopy Latch Bar and reinstall.

