

Aeropro aircraft wing-folding procedure/checklist...



Step 1: Securely chock the aircraft. **NOTE:** Don't just trust the parking brake. And if the aircraft is not properly chocked, then as you begin to fold a wing the plane will pivot and it's a real problem).

NOTE: It is very important to have the fuel tanks less than half-full before folding the wings, and if the aircraft is going to be trailered, it is preferable to have the wing tanks as empty as possible.



Step 2: Install "A240 tailwheel"

NOTE: This step is only used when folding the wings on an A240 tricycle-gear plane, and is not when folding wings on an A220 taildragger.



Step 3: Remove the turtledeck.

NOTE: The turtledeck is secured with six 1/4-turn Camloc fasteners. It is a little tricky to properly and easily remove and reinstall, and this needs to be demonstrated by an experienced person to learn to do properly.





Step 4: Remove both flaperon control linkage bolts (be careful to not drop/misplace the small castle nut, washer or safety pin...).

NOTE: When later reinstalling these small bolts, the bolts are inserted from the outside, with the washers and castle nuts and safety pins on the inside.



Step 5: Assure that the flaperon control arm is free and clear from the pushrod.

NOTE: When you begin to fold the wings back, be sure that the linkage arm is NOT catching or jamming on the pushrod. To help avoid a problem, you should put the control sticks in the middle/neutral position.



Step 6: Remove the wing front spar bolt -- usually easy to do by pushing/tapping up with a slim #1 Phillips screwdriver, protecting the door polycarbonate panel with a microfiber cloth as shown to prevent scratches).



Step 7: After the front spar bolt is mostly out and reasonably loose, and can be pulled out by hand, it is essential to be holding the wing (so it will NOT begin rotating/falling rearward when the bolt is removed...). Pull the front spar bolt out and immediately insert a slim #1 Phillips screwdriver as shown to hold the wing in place. (the reason for this step and using these thin screwdrivers is so both wings can be "ready" to fold by just pulling the screwdriver out while holding the wing securely)



Step 8: After both wings have their front spar bolts removed, but still secured with the #1 Phillips screwdrivers, then hold the wing and remove the screwdriver and very carefully fold the wing rearward.

NOTE: Until the person is good with this procedure, it is a VERY good idea to have another person on hand to hold the wing in position - to keep it from accidentally falling rearward and doing great damage...



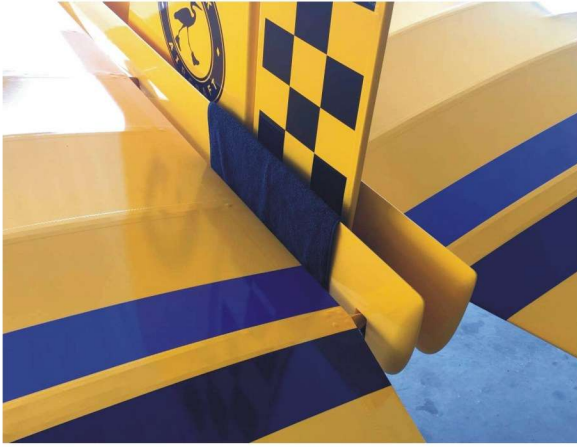
Step 9: It is ESSENTIAL that the flaperon be held "as flat as you can, as long as you can" -- so that it does not hit a fuselage steel tube and do damage to the flaperon or to the tube. To ASSURE that the flaperon is not hitting something or binding, the flaperon should be gently "wiggled" up and down sort of continuously during the wing-folding process, to be sure it is free and clear during the entire process.

NOTE: As you begin to fold the first wing, the A240 will begin to tip gently rearward and settle on the tail (presumably on the A240 "optional tailwheel" if installed).

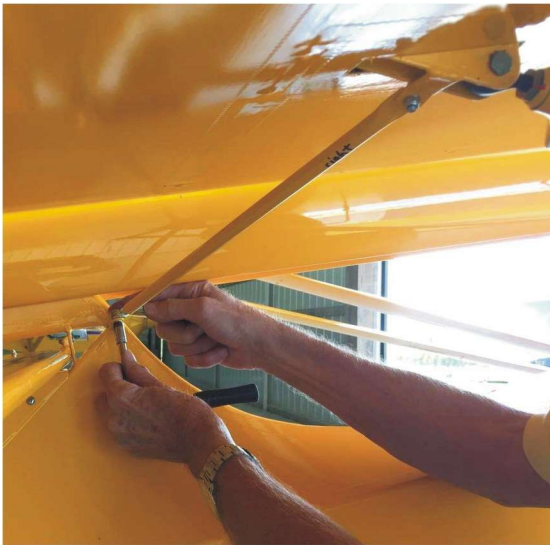


Step 10: As the wing is almost all the way to the rear, then the flaperon will need gently tilted vertical, so that it goes not hit the antenna (or when the second wing is being folded, so that the second wing's flaperon does not hit and gouge into the first wing's flaperon).

NOTE: It does not matter if the left or the right wing is folded first.



Step 11: After both wings are folded, before securing the wings in place (in the next step), it is a good idea to put a medium-size bath towel as shown over the flaperon, to prevent the flaperon from rubbing on the vertical stabilizer or the rudder.



Step 12: Secure the wings in the folded position using the short rods and with the 5mm bolts, washers and nylock nuts. Presumably, the rods have previously been adjusted for optimum length and angles and marked "left" and "right."

NOTE: It is essential to tighten the 5mm bolts/nuts good and snug if you are going to be hauling on a trailer, to avoid the bolts getting loose. (however, if folding the wings only to roll the plane around and store in a hangar, then just plain nuts could be used or even some wingnuts could surely be utilized to make the process quicker and easier)

To put the wings back in position for flight, it is basically a matter of doing these steps in reverse. Of course, it is absolutely essential that the flaperon linkage bolts, washers, castle nuts and safety pins are installed, and absolutely essential that the wing front spar bolts, washers, castle nuts and safety pins are installed. Don't forget to remove the A240 "optional tailwheel"!

These several photos and text are intended to help the aircraft owner follow a proper procedure to fold and secure the wings. However, this is only intended to supplement the owner having been personally shown and trained by a qualified person in the wing-folding procedure, where the aircraft owner can learn some further details and tips and get some supervised practice, so that he or she can do the wing folding (and unfolding) procedure properly and safely.

IMPORTANT NOTE FOR TRAILERING: If you are loading the aircraft into a trailer for transport, then it is necessary to pull the control sticks forward a bit, so that the elevator is not free, and will not bounce up -- and the top of the elevator trim tab horn hitting the bottom of the left horizontal stabilizer (and poke a hole in it). Secure the control sticks forward with a strap or rope of some sort and perhaps holding in the middle position with the seat belts. Also, secure the flaperons from rubbing the vertical stabilizer and rudder usually with towels between them.

Any questions at any time, please email or call and we'll be glad to help!

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