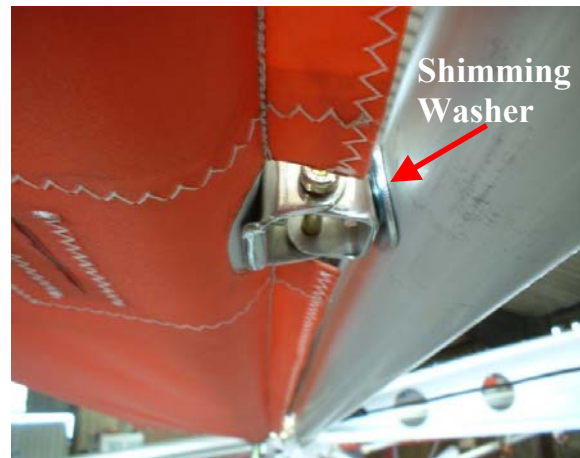
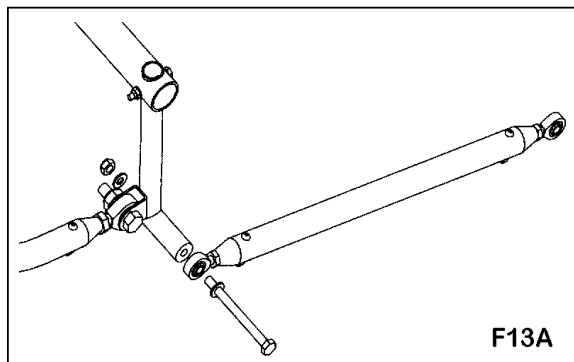


- l) With the wing in place, each pin location can now be reamed out to give a good fit, one or two may already slide in easily but it is normal to have to ream the holes for a better sliding fit. With someone holding the wing at the tip, start with the lower wing strut pin remove it and run a 10mm drill (10mm reamer better if available) through the hole to clean out any burrs, refit pin. Do the same with the LE and then the TE using a 8mm bit/reamer this time. Pins should be a nice sliding fit, use the tool provided to insert and remove the pins.
- m) When complete you can now tighten the bolts on the swivel bracket 312314, that secure it to the root not the swivel bolt itself which should be free to rotate. Fit other wing in the same way.
- n) Wings may now be checked for correct washout (twist), this is set at the factory and only needs to be checked that the tip is slightly higher at the TE. Place a length of timber across the wing near the root with a spirit level on top of it. Pack the spirit level so bubble is in the middle. Move the timber/spirit level/packing out near the tip. The Trailing Edge should be slightly higher i.e. Washout, if lower, then it may be possible some of the bracing cables are not in the correct places.
- o) The flaps and ailerons can now be fitted and setup. First remove the hinges from the TE apart from the one at the tip, root and the two in the middle at the strut location.
- p) Lift a flap into place and fit the 6mm bolt at the root and 4mm bolt at the other end into the hinge. Note do not fit any nuts. You should now have two half hinges missing in the middle of the flap, temp fit the other half of the hinge to the flap hinge with the 4mm hinge pin. What you are looking for is the amount of shimming/spacing the hinge needs to be out from the TE, fit the required amount of washers behind the hinge to suit.  
You can fit the bolt through from the inside to help temp line this up. It is normal to have one washer on one hinge and maybe two on the other. A thick penny type washer was used in the picture below, but any normal washers serve the purpose. You do not need to fit these at this stage, just make a note on a piece of paper for each location so it can be referred to later when finally fitting the hinges after the wing is covered.



- q) Do the same with the other flap and also the ailerons which only have one hinge in the middle. You may find that a hinge needs no spacing at all.
- r) Fit the actuating arms to the flap control on the fuselage and connect to the flaps see F13A.
- s) Set the flap lever so the flaps are fully up, set the neutral/up position of the flap, so that it is in line with the rear fuselage top tube. i.e. if you were to measure the angle it would be 0° to the fuselage top tube. If you stand at the tip you can get a good view of this, adjust the control arm rod eyes to suit on both sides, and make sure that they are locked up again when finished. Check to make sure the flap rod in the fuselage is also locked up. Add a bit of paint to the nut and rod end, for future inspection purposes.

- t) The ailerons are next to be set. First the aileron cable system in the cabin must be centralized. To do this you use the locking tool in the kit, this consists of a piece of aluminium with two 6mm holes 221mm apart. This is attached to the aileron swivel arm and one of the bolts on the cabin frame roof. This locks the swivel arm in the middle and allows adjustment of the turnbuckles to keep the control column's are in the middle. Have the cables taught but not tight, Lock the turnbuckles with the nuts and then wire lock.
- u) When this is completed, the ailerons pushrods can then be set, leave the locking tool in place and adjust the rod eyes on the aileron torque tube, so that the aileron bellcrank in the wing is perfectly inline with the compression tube. i.e. the actuating arm that connects to the aileron link rod is 90 deg to the compression tube. (see picture).
- v) When set adjust each aileron link rod so that the ailerons are 2 deg up from the fuselage top tube. To do this use a spirit level type gauge with an adjustable dial, like a prop pitch setting tool or digital inclinometer. When correctly set the bottom of the aileron should line up approx. with the middle of the flap. i.e. the ailerons are slightly higher than the flaps.
- w) Lock up all linkages and apply a bit of paint to the nuts/threads for pre flight checking later. Mark each control rod port/starboard etc so they wont get mixed up.
- x) A safety cable is fitted to the wing root, this attaches to the up facing bolt on the cabin roof see picture below. This cable is used to allow the wing to be folded and prevent it from coming off the alignment tube. We replaced the nut with a wing nut and drilled the ends of the bolts for a safety ring for easy removal.
- y) To trial fold the wings first disconnect the aileron link in the cabin roof at the wing root then also disconnect the arm at the flap horn. Have someone hold the wing tip and remove the TE and LE pins first then remove the wing strut pin at the bottom of the fuselage. Pull the wing out from the fuselage from the wing tip, the wing should slide out on the alignment tube. Turn the wing through 90deg and walk back towards the tail. See pictures.



**NOTE carry out Mod No.6 to the 6mm Flap & Aileron hinge Bolts**

