Reviewed by: Dick Sutton – Manassas, VA, USA

Specifications
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* Wing Span: 56 in
* Wing Area: 567 sq in
* Length: 49.5 in
* Weight: 5.5 lbs
* Engine: 2-stroke .25-.40
  OS .25 FP used
* 5 Servos required

The Hobbico Twinstar ARF comes very well packaged with the pre-built sub-assemblies neatly bundled and protected against damage. An excellent instruction book with many pictures per page detailing the building process is provided (36 pages!). As such, no plans are provided (as is the case with most ARFs). The hardware package provided is surprisingly complete. It even includes fuel tanks, spinners, wheels, and all mounting hardware.

The building proceeds very conventionally for an ARF. One word of caution: don't expect to slap this plane together in an evening or two's time. There is simply too much to accomplish! Take your time and you'll be rewarded with a great looking plane. Assembly begins with the wing: building the wing joiner, adding the ply wing root pieces, cutting out the aileron servo hole, etc. I chose to fuel-proof the engine nacelles at this time rather than later in the assembly process (you did read the instructions before you began?). The nacelles are easier to handle prior to being attached to the wing. For fuel-proofing, I used the old standby: AeroGloss clear Hot Fuel Proof Dope. Being somewhat paranoid, I also took this opportunity to apply glue to all joints of all parts that I could access on the entire model.

A bit of sanding was required to allow the nacelles to slide onto the wing and firmly seat. Next the throttle servo holes were cut for each wing and the associated lite-ply servo mounting plate attached. Strings are installed to facilitate pulling the servo connectors through the wing. These are a real help later after the wing halves are joined. Often, gluing the wing halves together can be tricky due to the wings tendency to slip out of position due to dihedral or trying to align the halves using some sort of weight. Hobbico has solved this problem rather neatly by combining the wing hold-down 'dowel' in the wing root ends. As such, it provides for a nifty place to clamp the halves together during the wing joining process. Drilling the wing hold-down bolt holes and installing the blind-nuts is rather straight forward. I did think that it is rather clever the way they have you use o-rings on the underside of the wing bolts to keep them from coming out and getting lost.

One curious note about mounting the tricycle landing gear: the nose gear has a 'flat' ground into the main strut, whereas, the main gear do not. I used my Dremel to grind a 'flat' on each of the main gear pieces prior to installing the wheels and wheel collars.

Attaching the stabilizer was very straightforward. The only caution is to be sure to check (and re-check) the alignment frequently while the epoxy is setting. Attaching the fin caused some concern. The fin did

not ‘bottom out’ on the stab. As a result, I ended up gluing an additional 1/8 inch piece of balsa to the bottom of the fin and sanding in down until I had the contact that I wanted. If you fail to recognize that the fin is not seated on the stab, the only thing holding it to the plane is the tiny overlap (front & rear) of the fin and main deck! Again, check (and re-check) the fin alignment while the fin is drying.

Call me paranoid, but I don’t trust shrink-wrap holding my pushrods together. I slipped the shrink-wrap off of each end of each pushrod and then wound un-waxed dental floss around the metal rod inserted in the wooden pushrod. I then saturated the whole area with thin CA.

The radio gear went in without a hitch: plenty of room here. The control horns went in just as easy.

I chose to power the Twinstar with the recommended OS .25FP engines. Hobbico suggests that if you choose to use .40 size engines, then be sure to use bushing engines (i.e. the OS .40 FP or LA) not the ball-bearing engines (i.e. OS FX series) as they have too much power.

The new OS .25FP’s were broken in with a couple of tanks of fuel on the test stand before I mounted them on the plane. Next, I discovered that getting the pushrods exactly the same for each engine was going to be difficult (no two engines run the same). So at this point, I opted to use my Futaba 8UAF and it’s mixing features.

I decided to forgo the y-harness (suggested in the instructions) and decided on the Throttle-Mixture feature of the 8UAF (TH-NDL). I plugged the right engine servo into channel 3 (throttle channel) and the left engine servo into channel 8. Using this setup allows me to adjust the right engine (master) first, then using the channel 8 knob, I can make fine adjustments to the left engine until the engines are sync’d. In addition, this setup allows the throttle-cut switch to kill both engines. This proved to work out very well, and with the help of my wife, I spent an hour synchronizing the engines at home (instead of at the field in 90 degree heat). On flight day, I fired them up, adjusted the idle, double checked the control surface directions, and taxied out. There was a good breeze coming about 45 degrees from my left as I started my take off roll from right to left (we always have a crosswind at our field). As I applied power, the Twinstar accelerated rapidly and lifted off at a little over half throttle. It flies as if on rails. At this point I was glad that I had set up the control throws per the directions. Rolls are very axial, stalls are straight ahead and recoveries are easy. Landings are straightforward as long as you don’t try to float it in like a trainer. This plane slows down real fast on final approach.

The Hobbico Twinstar ARF is a quality airplane and should provide a lot of enjoyment. I chose this twin ARF because I wanted to try a twin, wanted something that would look great, and yet be small enough to stash in the trunk of my car without having to buy a truck to transport. The Twinstar met and exceeded all of my expectations. This airplane will do anything that I am capable of asking it to do, and then some. It’s great for a first-time twin, and can’t be beat for stability. I plan to use the TwinStar as a test bed to experiment with using differential throttles (i.e. sync’ing the engines with the rudder for smother turn), and throttle out situations. These experiments will be the subject of future articles.