

Rigging the PIK-20

OK, here's some rather detailed notes on rigging the PIK20. 'KG comes with a very nice trailer. The trailer tows well and is about as small as a 15m gets, however as a result everything fits very snug so there's not a lot of clearance when sliding wings and fuse in+out!

The PIK rigs real easy with 3 people and derigs easy with 2. It is possible to rig with only 2 people but believe me it's a lot slower.

Preparation

Open the front hatch, pull-out the small wire pins securing the wing trolleys to the trailer. Get the big block of wood out. Also get the wing stand from under the "roof" if you only have 1 helper. Open back door, unhitch trailer and stand it's foot on the large block of wood to raise the front higher. Crank foot until feet of the open rear door are on the ground.

Unfold the flap that holds the fin in the trailer and wheel-out fuse (watch-out it doesn't "take-off" when it reaches the sloping door). Pull-out the nails or whatever to let the fuse dolly down the track further. Push the nails back to lock the dolly in place.

Get the black "persuader" bar out of the rear LH side of the trailer. Open the canopy, get the main pin out of the LH cockpit pocket. Put the persuader and main pin in a handy place on the seat. Put flaps at about 45 degrees.

Shut the canopy. Unclip the protectors at the fuse wing root but push back on.

The Wings

Get a helper to pull out the RH wing tip and CAUTION the helper to watch the leading and trailing edge so as not to scrape on the trailer. Unpin the root from the trolley and stagger around to the fuse. Knock-off the protector and poke the wing carefully in the fuse feeding the water plumbing in first and guiding the pushrods by hand. Align wing as best as possible (note black pen marks inside fuse as a reference). Help your mate put the tip on the stand if need-be (don't trust the stand on it's own though).

Open the canopy. and repeat process for LH wing. Note small alignment marks (black pen). Chances are the wing needs to go higher than is often thought (tips are bloody heavy!). At this stage make sure RH wing is fully in and LH is still 2cm out. Look in the cockpit at the wing roots and get helper to position the tip heights so the roots line up with the black pen markers. With practice it is easy to "pull" the two wings together, however novices could fit persuader bar into the top of the spars and apply a little force whilst giving directions to wingtip helpers. There is no need to apply much force.

If the wings don't go then they aren't aligned. Do not rock the wings, all alignment can be done by using your brains not brawn!

The wings should snap-in and you can then fit the main pin and relax. Safety-pin the main pin.

Remove centre wing trolleys. Caution flaps dropping down hard. Open control cover and connect up the controls ensuring that the string loops are clear of snagging anything. Make certain that the pin flats are really home. The RH flap pin is sometimes fiddly. Don't drop the pins inside unless you have a few hours spare to retrieve them (hence the loops).

Check controls.

Tailplane

This is easy if done correctly! It's difficult if any other method is used.

The cause of any problems is the top inside of the elevator snagging on the top of the metal fin fitting. This is avoided by holding the elevator in a full down position.

Trim full forward (gets pushrod out of the way) or have someone pole forward for you. You can also jam the 'chute over the stick.

Make sure the front pin on the top of the fin is movable (Unclip safety pin). Align the 2 rear bearings.

Straddle the fuse facing the fin. Fit the rear of the tailplane into its two pins while simultaneously holding the elevator in a full down condition. It may also help to flick the rudder over to one side with your finger. Check alignment by looking at black pen marks on the underside of the tailplane. The rear of the tailplane should slot in.

Align the front bearing and pull the front pin. The tailplane should drop in nicely. Release the pin and it should spring back in. Safety pin the pin through the rearmost hole. Go to the rear of the tailplane and fit the control-rod. Safety-pin it too.

Fit the TE probe (blow through it first incase it has bugs in).

At this stage you can lower the undercart. Pull the tow release the you should be able to push the glider back off the trolley. Remove the rear metal rigging bits from the fuse....that's basically it!

After a duplicate check you can tape the cover in place (remember to turn O2 bottle on if needed).

To Derig:

It's necessary to push the fuse high up on the trolley (note 2 alignment marks on LH side). This can be done easier if you drive the main wheel up on the little wooden ramp. Don't push too fast otherwise you'll wipe-out the wheel doors! This gets the fuse into the cradle and the wheel off the deck. Connect the tiedown to the bellyhook.

Put rear rigging bits on rear of fuse. Lift the tail and raise the undercart. Put centre wing trolley on the RH wing, put wing on stand. Put flaps at about 45 degrees. Disconnect controls (caution flaps dropping). Put control pins back in the cranks. Push centre trolleys up further on the wings to just cover both aileron + flap.

Trim forward and disconnect the elevator pushrod (put safety pin back in hole). Pull pin on the front tailplane bearing, lift-up leading edge to clear bearing, re-seat front pin.

Now do this right:

Push full down elevator (it may help to flick the rudder full one way too). Undo the front pin and gently ease the tailplane forward til free. Put tailplane in rigging dolly (pin sticking outward).

Get you helper to take the weight on the LH wing. Remove main pin and ease out wing. Caution on rotate (slippery tip) and caution on hitting the fuse pins as the wing is put in its root trolley. The tip may need lowering a little to get the big trolley pin in. Remove wire pin holding

trolley.

Slide wing inside watching leading/trailing edge clearance. Repeat for RH wing.

Put persuader bar away. Put side protectors on fuse.

Other points to watch:

Pin wing trolleys (with little wire pin) before fitting root into trolley, and pin trolley again at the far end for trailering.

When rigging with just 2 people it helps to stop the fuse rotating as you try to get the wing heights right. Try lowering the wheel onto a block of wood to achieve this.

Also watch out for clearance with fuse side when moving wings in and out. Warn helpers that the wing tips are heavy and slippery when rotating.

Beware of fuse blowing over when rolled-out on it's own.

Master switch off. O2 off.

JR May 2000