## **GROB 102 RIGGING TIPS**

The G102 can be a real b\*\*\*h to rig, but it need not be that way. Here's a compilation of things we have learned along the way.

- Find some level ground if possible.
- Don't crank the trailer all the way to the ground like a K21 trailer. Level the trailer fore and aft.
- Keep vertical stabilizer vertical---use a spare person if available.
- Use the short wingstand- we have two look-alikes observe.
- Grease is essential! Don't grease control hookups, though. Do grease the spar spigots (the metal prongs sticking out of the end of the spar stubs) and the pivoting lift pins (2 each wing). Concentrate on the ends, to the grooves. To get to these, insert the spar stub partway onto the sparbox, then stop and grease. Grease the openings for the lift pins in the fuselage.
- Align the spherical bearings (looks like a pitted olive) in both wings and control hook-ups, and grease the entrance for the spigot.
- Make sure the locking collars are "open". Push outboard and rotate. They should already be in that position, but......
- RIGHT WING first. The spherical bearing is forward of the spar. Make sure vertical stabilizer stays vertical!
  - Slide wing in, carefully position control arms so they are free, and don't get stuck. If they do you'll have to remove wing and start over!
  - Adjust dihedral and fore-aft alignment., guide lift pins into tubes. The cockpit has magic marker lines showing the spar alignment, dihedral wise.
    - In addition, IMPORTANT the spar stub must be in the middle of the opening, vertically. (i.e. as much space above as below the stub)
  - Lift the wing at the root about 3/4", and gently push from the tip, along the spar line. Should go in if you have done everything right so far!
  - If not, check vertical, dihedral, and fore-aft alignment, and check the locking collars. Once in, rotate collars and let them pop out.
  - Then, gently rock wing fore and aft a couple of inches to seat the locks.
  - Then, rotate the collar to contain the pins, which should only go about halfway into the slot.
  - Place the SHORT wingstand under the wing, as close as possible to halfway from fuselage to tip. This balances the wing better and makes insertion of left wing easier.
- LEFT WING. Same drill. Watch dihedral marks and vertical and fore-aft carefully, and path of spar spigot into spherical bearing. Again watch control arms. Lift gently, insert, and push.
- If it doesn't go smoothly, you are doing something wrong. Stop and figure it out. Usually it is an alignment problem, or a failure to grease.
- Hook up control before trying to seat the horizontal stabilizer. Look carefully how this works, as you will be doing it blind for the airbrakes and ailerons.
- Hook up airbrake and aileron controls.
- Now that wasn't so bad, was it?