

## **Rigging G 103** with fuselage cradle that does not adjust. (Minimum four strong people. )

1. Position trailer
  - A. Place in a non windy area with room to roll fuselage off and attach wings.
  - B. Chalk trailer wheels.
  - C. Unhitch trailer.
  - D. Lower rear jacks and pin into position. Ideally they should be pinned through comparable holes on each side.
  - E. Raise trailer tongue until rear jack firmly contact the ground.
  - F. Lower tail gate/ramp and pin jacks at hinge into position.
2. Position padded saw horses near where wings will attach to fuselage.
3. Remove wings from trailer and place on sawhorses.
  - A. Unscrew clamps at spars.
  - B. Untie wing tips (and any other tie downs).
  - C. Lift wings over side rail of trailer and place on sawhorse.
4. Remove horizontal stabilizer in cradle.
  - A. Remove bolt and pin.
  - B. Place in a safe, non windy location on the ground.
5. Roll fuselage off trailer onto the ground.
  - A. Untie tail.
  - B. Release wing lock hubs. This may require adjusting turnbuckles.
  - C. Unbolt fuselage cradle turnbuckle at the cradle.
  - D. Roll fuselage onto the ground.
  - E. Move fuselage cradle about 6" forward of wing leading edge position by rolling fuselage onto ramp.
6. Remove canopy and place in a safe location.
7. Attach wings.
  - A. Remove back seat access panel.
  - B. Examine wing lock hub pipes in insure equal lengths of threads protrude from the fuselage on each side. Adjust if necessary.
  - C. Unlock wing attachment hubs.
  - D. Clean then lubricate all wing connections – sockets, spigots, and control hookups -- lithium grease
  - E. Slide aft wing spar into pocket, and lock and safety hubs. (Wing spars are usually marked "on first" or "off first". Safeties should be finger tight. Allocate personnel so that an individual knowledgeable in the proper attachment of wings and control surface hookups does not do the hookups so s/he can perform the critical assembly checklist.)
  - F. Slide forward wing spar into pocket. At the tip of each spar is a spigot that fits into a ball sleeve bearing on the opposite wing that can easily rotate out of position if the first attached wing is not in the precise position. Without detaching the first wing, you may have to move its wing tip up, down, fore, or aft a few centimeters to move its spigot less than a few millimeters to properly align with the second wing's ball sleeve bearing.
  - G. Lock and safety hubs on second wing and make spoiler and aileron hookups and safety.
8. Install horizontal stabilizer and make elevator and trim tab connection and safety (if not automatic).
9. Install canopy and attach safety line.
10. Position incline plane behind main wheel
  - A. Roll glider backwards onto incline plane.
  - B. Roll cradle forward.
  - C. Roll glider forward off incline plane.
11. Perform positive control check and critical assembly checklist.
12. Secure trailer.
  - A. Roll fuselage cradle back onto trailer, and bolt to turnbuckle.
  - B. Reattach horizontal stabilizer cradle (one pin, one bolt)
  - C. Bungee wing locks to side rails of trailer.
  - D. raise and secure rear gate/ramp.
  - E. Raise and secure rear corner jacks.
  - D. Park, chalk and cover wheels.

## De-rigging.

1. Position glider and trailer.
  - A. Place glider in a non windy area with room to position trailer.
  - B. Position trailer in front of glider with room to lower tail gate/ramp.
  - C. Chalk trailer wheels.
  - D. Unhitch trailer.
  - E. Lower rear jacks and pin into position. Ideally they should be pinned through comparable holes on each side.
  - F. Raise trailer tongue until rear jacks firmly contact ground.
  - G. Lower tail gate/ramp and pin jacks at hinge into position.
  - H. Remove horizontal stabilizer cradle and place in safe location.
2. Position fuselage cradle.
  - A. Unbolt cradle from turnbuckle and roll off rear ramp and under glider fuselage.
  - B. Position incline ramp behind main wheel.
  - C. With one person on wing tip, roll glider backwards onto ramp.
  - D. Position fuselage cradle between nose and main gear about 6 inches in front of leading edge of wing.
  - E. Roll glider forward off ramp and onto cradle. Make sure cradle does not contact underside of wings.
3. Remove horizontal stabilizer and place in cradle (off the trailer).
4. Remove wings.
  - A. Position padded sawhorses near wings.
  - B. Remove back seat access panel.
  - C. Unlock wing attachment hubs, spoiler and aileron connections.
  - D. Remove wings and place on sawhorses.
5. Load fuselage.
  - (A. The track for fuselage dolly on the trailer is too short, and the turnbuckle that connects to the dolly too far aft. At present the only way to make proper connections is to roll the fuselage back onto the ramp, move the dolly aft about 10 inches so it overlaps the position of the wings, and roll it off the ramp.)
  - B. Roll fuselage onto trailer until fuselage tail wheel matches wheel well.
  - C. Attach wing lock hubs. Adjust turnbuckles as necessary.
  - D. Bolt cradle turnbuckle to cradle
  - E.. Attach canopy cover.
  - F. Strap down fuselage at tail. **DO NOT USE HOOKS. USE OPENABLE CHAIN LINKS**
  - G.
6. Load horizontal stabilizer in cradle; pin and bolt into position.
7. Load wings.
  - A. Loosen main spar clamps.
  - B. Load wings over side rails of trailer.
  - D. Bolt main spar in clamp and safety.
  - E. Tie wing tips to trailer using wing tip tie downs. The clamps prevent forward movement. Tie wing tips to prevent aft movement **DO NOT USE HOOKS. USE OPENABLE CHAIN LINKS**
  - F. Attach aileron locks and protect aileron and spoiler control connector rods.
8. Raise tail gate/ramp and pin into position.
9. Attach trailer to hitch, raise jacks at back of trailer, and make electrical connection.