

## RIGGING AND DE-RIGGING

**Aim:** To learn how to rig and de-rig a glider.

Not all gliders enjoy the luxury of remaining rigged and hangared when not being used. Indeed, gliders often have to be rigged prior to flight and derigged after...or if they land at a place requiring a trailer retrieve. It is fair to say that most two seat trainers are usually left rigged so your initial exposure to the task of rigging and derigging is likely to be with privately owned single seaters... where the owner requires some assistance. Here are some general pointers on how to perform this task safely and efficiently.

### General:

- Know how many people are required for the particular glider type...usually a minimum of 3.
- Know who is in charge and follow their directions.
- Wing stands and fuselage cradles and supports can be used... know where to position and secure them.
- Check the Flight Manual for guidance on the rigging or de-rigging sequence.
- Never let go of something unless sure it is okay to... fuselages have been left to fall over!
- When holding wing tips, use very small movements in response to the person calling for adjustments when lining up the wing spars for wing pins or control hook-ups. An instructor will show you how to respond to instructions like “*up a bit*” or “*back a bit*”.
- Guard against over exertion... call for assistance and don't lift in a way that strains your back.
- Secure the trailer at the correct angle for getting components out or in.
- Line the trailer into wind so the fuselage is into wind.
- In windy conditions, use more people and guard against the wings trying to fly when rotating them. Gusts have caught people by surprise and wings have been blown out of their hands...crunch!

### Rigging:

- Ensure helpers know how and in what sequence components are removed from the trailer.
- If components are going to be removed from the trailer and left on the ground, ensure they are well supported clear of obstacles like sticks and stones. Ensure they are readily visible so they won't get walked on or driven over.... Yep... this has happened to wings and canopies!! *Expensive.*



Clean and grease rigging pins, spiggots and fittings prior to assembly with a high quality Lithium grease.



- Ensure components like wing spars, spiggots and control rods are lined up before bringing structures together.
- Do not get your fingers in places where they can be caught or crushed by the components.
- Put any cradles or rigging / trailering gear back in the trailer so it is ready for going on the road.

**De-rigging:**

- Know the sequence for both derigging and loading into the trailer.
- Ensure adequate people are there to assist.
- Ensure adequate lighting. Car lights may be required if out in a paddock at night.
- Be careful not to lose any small items like pins or locking devices. Know where to stow them.
- Secure the cockpit items to ensure nothing is loose and able to damage the canopy when trailering.



**Tip:**

Watch a rig or de-rig and learn from observing what each of the participants does in the process. Don't be backward in offering assistance as the more hands the better... and you may need help rigging later yourself.

**Need To Know:**

- How to assist with rigging and de-rigging gliders operating at your site.
- Specifics relating to your glider trailer and rigging equipment and how to rig and de-rig any glider you fly solo.

**Further Reading:**

- Glider Flight Manual. Specific instructions on how to rig and derig the glider.



Derigging a Janus; the wingtips come off after the tailplane has been removed



Wing roots are heavy... make sure there are ample strong people to hold them as the wing is removed from the fuselage and that the fuselage is well supported, in this instance, it is in a fuselage cradle

