

Chapter 3

Section 3 - Wing Flying Wires

Materials:

Nelson 24' flying wire set - 1

4-40 x 1" cap screws - 8

Silver brazing solder (at least 50% silver content)

- Starting this procedure, you should still have the wings and frame together and propped on the table.
- The smaller pieces of the Dubro steel straps will be used to anchor the outer ends of the flying wires. Prepare them as follows:
 1. Using a vise, clamp a steel strap over the hole.
 2. Use a hammer to gently bend the cut end of the strap to a 50 degree angle.
 3. Repeat for each strap.
- Using a dremel with a thin cutoff disc, notch each of the 4-40 x 1" cap screws through the top of the caps.
- Install a 4-40 nut on each of the notched cap screws. Thread the screws into the end links (previously installed on the frame and cabanes) about 3 turns, and lock in place with the nuts.
- Braze an end of the Nelson stainless steel flying wire onto one of the steel straps.
- Remove one of the top, forward strut bolts. Use the bolt to mount the brazed strap.
- Uncoil the flying wire to the top, notched bolt at the lower wing mount. Determine the length required and cut the strap with tin snips.
- Remove the flying wire and the notched bolt. Braze the wire to the notch

in the bolt.

- Reinstall the flying wire by threading the bolt back into the end link. Adjust the length so the wire is just snug, but not tight when the strut bolt is remounted.
- Continue fabricating the 8 flying wires in the following order:
 1. Both front wires going to the top of the lower wing mount bolt bracket.
 2. Both rear wires going to the bottom of the lower wing mount bolt bracket.
 3. Both front wires going to the top of the cabane bracket.
 4. Both rear wires going to the bottom of the cabane bracket.
- Mark the wires to differential the left wires from the right. The cabane wires are distinguishable from the wing mount wires because they are longer. The forward wires always go to the top of the brackets, and the rear to the bottom of the brackets.
- Disassemble the wings, cabanes, and struts. Leave the wires attached to their respective brackets.