

This information on how to trammel a Taylorcraft wing was sent in by TOC member Gary Leopold. It should be of great help during restoration especially if the wing is completely disassembled. On the wood spars it is a good idea to remove the old varnish by carefully scraping with a piece of glass instead of sanding.

## HOW TO TRAMMEL A WING

### PREPERATION:

1. The wing is normally placed upside down and positioned to rest flat.
2. On wings with left and right hand threaded drag wires, place all right hand threads to the front and left hand to the rear, or vice-versa.
3. Project the centerline of each compression member to the centerline of each spar. It is sometimes helpful to stretch a thin sight line along an edge parallel to each spar to aid in ensuring the spar remains straight.

### TRAMMELING

1. Mark precise center points at the centerline of each spar where it intersects with the projected centerline of each compression member. The exact spacing of distance between spar centerlines at each compression member must be maintained not to exceed  $1/32"$ . If the spacing is greater than  $1/32"$ , it may be necessary to shim one end of the compression member.
2. A set of trammel points and rigid bar should be used when trammeling (squaring) a wing.
3. Starting at the root end of the wing, set one point at the root compression member centerline mark on the front spar (A). Adjust the second point to the centerline mark diagonally on the rear spar of the next compression member (B).
4. Reverse and measure the crossing diagonal (C and D). Adjust the tightness of this pair of wires until this first bay pair of diagonals are equal in length. Do not overtighten drag and antdrag wires; they should be firm but not to tight. The wire in the short direction can be lengthened (loosened) and the long wire can be shortened (tightened) to equalize the measurement.
5. Repeat steps 3 and 4 for each bay or pair of wires, example D to E and B to F. All that is necessary is to have each individual bay squarely adjusted and all of the wires close to the same tension. the individual bays may be different lengths particularly toward the wing tip.
6. Before securing wire locknuts, make sure that none of the wires are twisted (light oil on the threads will help prevent this). Also, be sure not to damage the wires in any way.

