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Wing Trammeling Instruction

The purpose of wing trammeling is to "square" the wing along its length. This is a very important process and, if not properly squared, will not fit the fuselage properly. If improperly trammed, it is possible the wing tip could lead or follow a line that is perpendicular to the fuselage. Problems with aileron or flap hinge alignment, and aileron end clearances with inboard and outboard wing ribs can occur. These problems can be avoided if a little time is spent "laying out" the wing for the correct trammeling process.

It doesn't matter where you start the trammeling process on the wing as long as your spar layout is accurate! First, you must make known the exact relationship of the butt end fitting holes to the centerlines of each drag/compression struts. To accomplish this, lay the front and rear spars next to each other with the butt end fittings installed and align the fuselage attachment holes with each other. This is the basis for keeping the wing square. When these holes are accurately lined up you can proceed by marking the spars as they lay next to each other at *each* compression strut location. Next, mark the center of each spar on the line that you have drawn across the spar. If this is done properly you can start the trammeling process at *any* bay and it will come out perfectly. Square is square!

When assembling a wing from scratch, we prefer starting at the "N" drag strut, mid-wing. When installed first, this assembly tends to automatically square the wing to some extent, and, with the strut attachment fittings located in this area, it is easier to slide ribs onto the spars from both ends.

If the wings are already assembled without trammel marks, you must use an alternate layout process. A narrow-width tape measure with the end removed can provide an accurate layout tool. Starting at the outboard tip rib, slide it under the rib capstrip and along the spar top cap, aligning it with the inboard wing-to-fuselage attachment hole. Remember - measurements used on the front spar *must* be accurately transferred to the rear spar! Once marked, the wing can be accurately trammed. This procedure works well when trammeling a wing in which only one spar has been removed & replaced. It facilitates the trammeling process, without complete wing disassembly for spar layout.