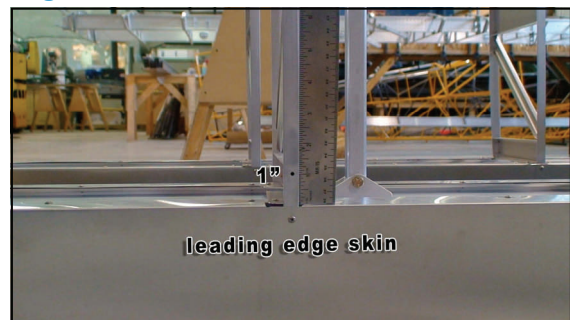


**Drill for rivets –Page #1/2**

In this module we will be showing you the steps needed to drill holes in the wings, flaps & ailerons. This is only done if you plan to use pop rivets rather than rib stitching to attach your fabric to the wings. The rivets will be needed to secure the fabric to the aircraft wing assembly. Depending on the length of chord of your flaps & ailerons the amount of rivets will change.

Starting from the wing front spar (on the bottom of the rib), measure back 1" and place a mark on the center of the rib, as shown in **Figure #250**.

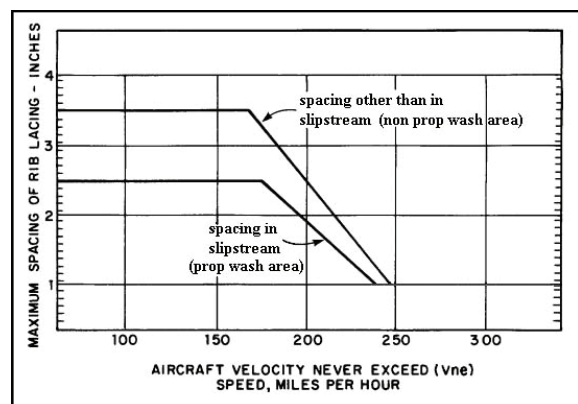
**Figure #250**

Then measure back 1" from the trailing edge skin and mark, as shown in **Figure #251**.

**Figure #251**

The FAA stipulations on the placement of rivets & lacing on the wings are found in AC43.13-1B Chapter 2 Page 2-21.

**Figure #252** shows the FAA maximum allowable spacing envelope. On our aircraft kits the ribs 1-5 from the wing root will need the 2 1/2" spacing due to the prop wash, the remaining ribs can be spaced at 3 1/2" apart, but no further. Measure and mark the locations along each rib, keep an eye for any possible poor placement of rivets around the rib support brackets, keep the holes far enough away so that when you later install the rivets they won't strike the support brackets. You repeat these steps for both top and bottom of each rib.

**Figure #252**

**Note:** Rivets are only needed on the bare rib and not on the leading edge or trailing edge skins.

**Drill for rivets –Page #2/2**

It has been suggested to make a story board for the rivet hole placement so that your rivet locations would be evenly spaced and uniformed. The story boards will also assist in cutting down the time needed when marking the locations. To make a rivet story board you could use a scrap piece of metal or bristle board. You will need to make a total of 3 different story boards 1 for the bottom ribs that are in the prop wash area, 1 for the remaining non prop washed area of the wing & 1 for the top non prop washed wing.

Flaps should have 3 rivet locations top and bottom in the prop wash area & 2 rivets in non washed areas. On each rib evenly space 2 locations both top and bottom for the ailerons.

When you have marked all of the rivet locations use a 1/8" drill bit and drill each hole & de-bur, as shown in [Figure #253](#).

**Figure #253**