Measuring Front Taylorcraft Wing Strut Attach Angles

Summary
In the course of providing the Taylorcraft community with sealed replacement wing/lift struts, we have observed and documented variations in the front wing strut attach angle. As of yet, we have not been able to match this variation to a certain make or year of manufacture. It is important that this attach angle be within tolerances which, in this case, are +-2 degrees. Otherwise, the tightening of the attach bolt could cause damage to the wooden spar.

In order for Airframes Alaska, to ensure that the struts you order from us will fit your airplane, we ask that you conduct the following procedure to determine your Taylorcraft airplane's front strut wing attach angle.

Since the difference is so small, great care must be taken to assure that one is measuring the angle accurately. This document is to assist you in making an accurate measurement. *The pictures in this document are all of original Taylorcraft front wing/lift struts.*

You will need your original front wing/lift strut to determine the attach angle.

** We recommend measuring both wing/lift struts to confirm your findings.**

** Rear lift struts do NOT need to be measured.**

Part Numbers
0-4 degrees: Standard Front Lift Strut: AF-MA-A815
6-10 degrees: Front Lift Strut Modification A: AF-MA-A815-A

Last Updated: 8/23/2011

Estimating Your Attach Angle
while the struts are on the plane

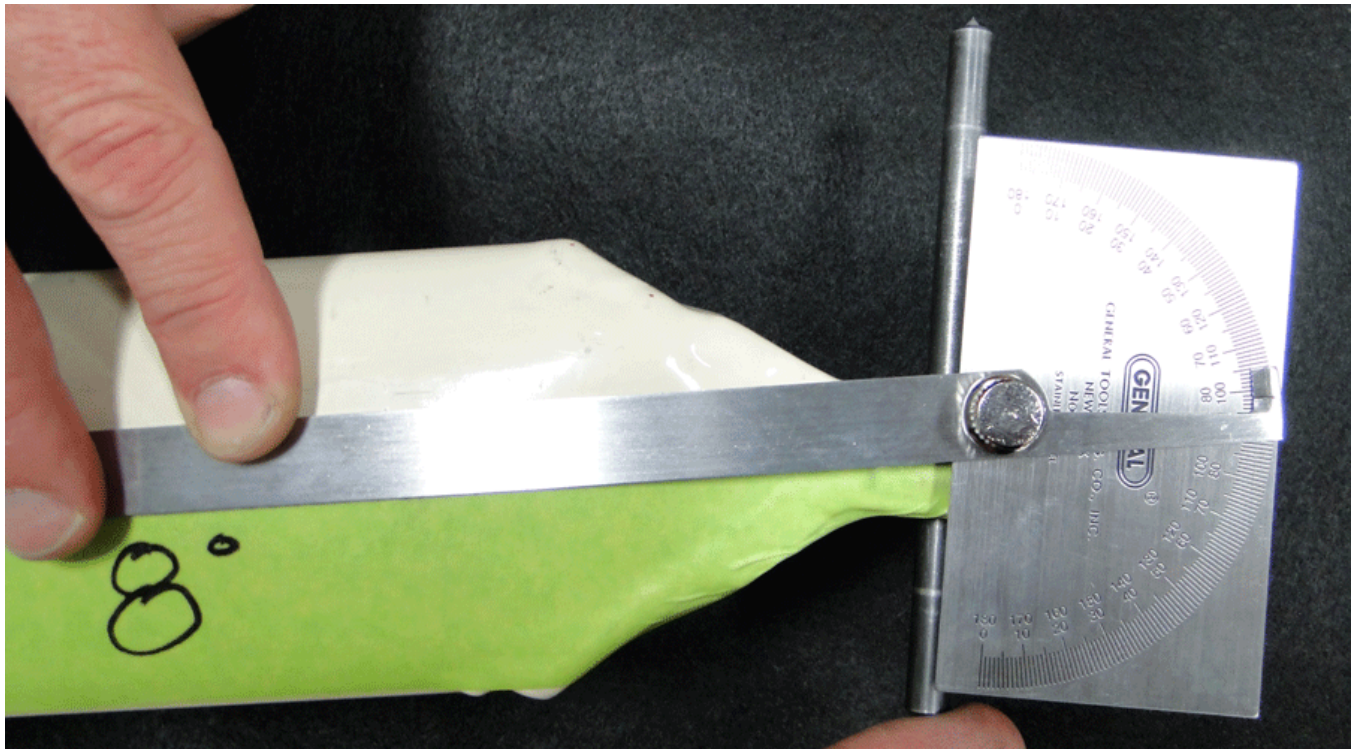
Using the trailing edge of the strut as a guide, place a piece of 1 ½" painter's tape along the strut for a length of 24". With the inside tape edge as a guide, use a protractor to measure the angle of the attach bolt as seen below in examples 1 and 2. If you tie-down fitting is attached via the attach bolt, you can use it as a guide for the protractor. If your plane is equipped with one, you also may be able to use the welded-on flat plate gusset as a guide.

Example 1

Example 2

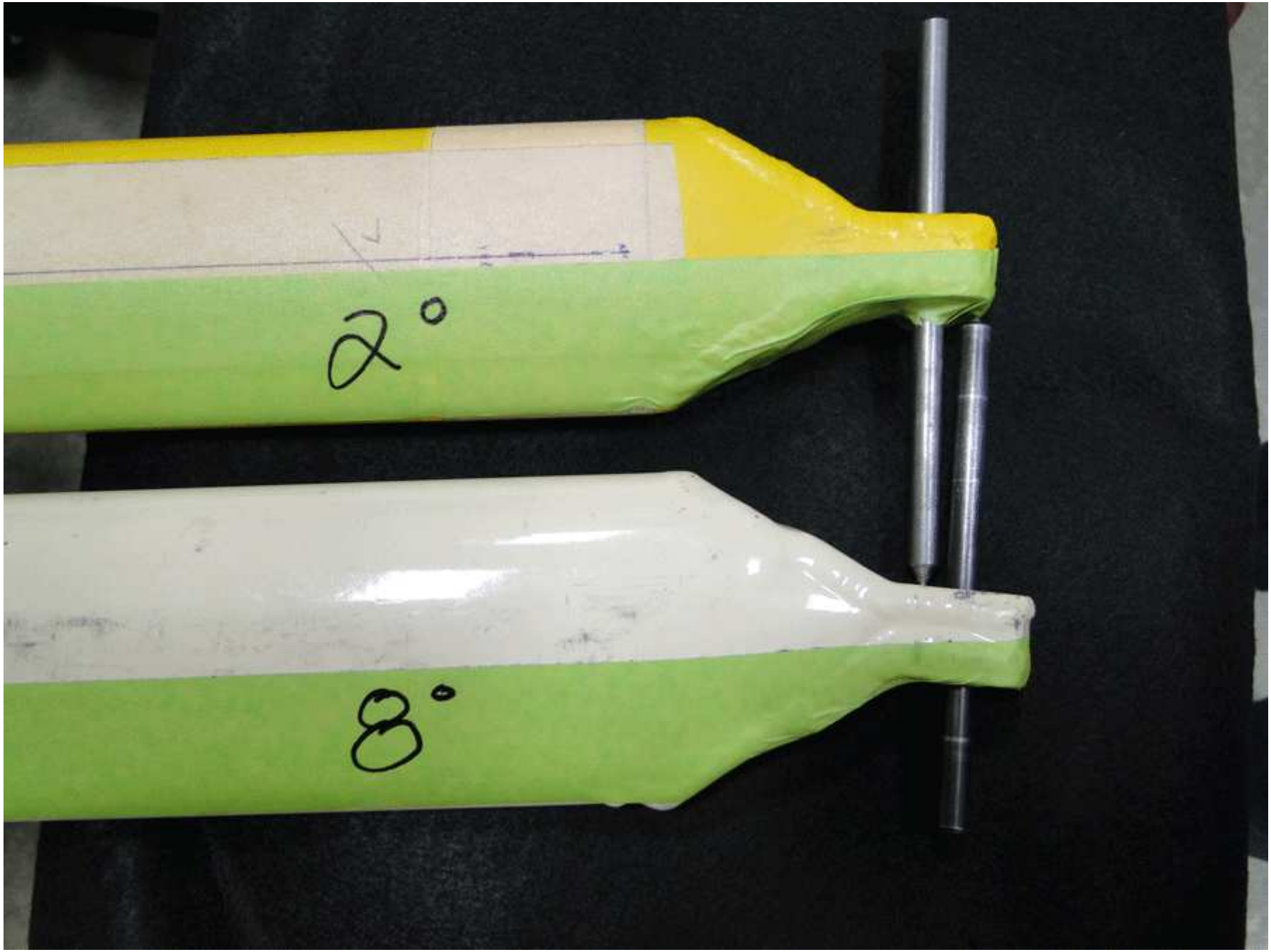
Estimating Your Attach Angle
while the struts are off the plane

Using the trailing edge of the strut as a guide, place a piece of 1 ½" painter's tape along the strut for a length of 24" extended to and beyond the attach fitting on the strut. Push your attach bolt through the attach fitting. With the inside tape edge as a guide, use a protractor to measure the angle of the attach bolt as seen below in example 3. See the following pages, for additional pictures of different degree attach fittings. Please note how the extended tape edge further clarifies the attach angle.



Example 3


2°
8°


2°
8°