

SERVICE**MEMO**

Service Memo No. 19

RIGGING PROCEDURE

Piper PA-18 and PA-19

RIGGING PROCEDURE: Raise the forward part of the airplane so that the wheels are just clear of the ground and support it by props under the front landing gear fittings. Raise the tail to approximate level flight position and support it there.

LEVELING: Level the airplane as follows: Drop plumb bob from P. K. Screw in door frame top channel to intersect punch mark in enclosure door rear hinge.

DIHEDRAL ANGLE: To check Dihedral angle at the front spar proceed as follows:

Stretch a string along the top of the wings above the front spar, from wing tip to wing tip, and draw it tight.

Check the dimension vertically from the string to top of fuselage front spar wing hinge fitting. For correct dihedral this dimension should be $3 \frac{1}{8}$ inches.

To check for equal dihedral in each wing proceed as follows:

Using the 30 inch level (without any spacer blocks) hold it spanwise against the bottom of the wing under the front spar in the space between the jury struts and lift strut attachments. Note the position of the bubble and do the same on the other wing. Re-adjust the front struts until both wings show the same amount off level, being careful with each adjustment to set the left strut out the same number of turns as the right one is set in, and vice versa.

WASH OUT: To adjust the wash out in the wings (dihedral of the rear spar) proceed as follows:

Set a $\frac{3}{8}$ inch spacer block on top of the 30 inch level at one end. Working on the rib adjacent to the outer end of the aileron, hold the level fore and aft along the bottom of the rib with the spacer block at the rear and the front end of the location of the front spar. The correct wash out will exist when the bubble is centered. Adjust the rear struts in or out to obtain this condition.

TAIL ASSEMBLY: With the airplane in level position the stabilizers should be leveled at their rear spars. The hinge line should be straight from tip to tip.

Plumb the fin at the rudder hinges.