SERVICE MEMO

Service Memo No. 21

MODEL PA-22 RIGGING PROCEDURE
(Supplement to PA-20 Rigging Procedure)

The rigging procedure for the PA-22 is the same as the PA-20 with the exception of the interconnection of the rudder and aileron control system, which is as follows:

In the control system of the Piper Tri-Pacer to provide automatically coordinated aileron and rudder controls for simplified air control, and to increase stability in flight, the aileron control cables are connected to the rudder cables by means of an interconnecting cable. The interconnection incorporates a spring and is arranged so that although in level flight a movement of the ailerons results in the proper rudder action to give coordinated turns, still the controls can be crossed if desired to obtain slips or skids.

In rigging the control system of the PA-22, this procedure should be followed:

1. Center the nose wheel, rudder pedals, rudder and ailerons with the interconnecting cables slack at turnbuckles, located behind the baggage compartment.

2. Check the airplane in flight for proper trim with the interconnecting cables slack.

3. During the flight check, if ailerons do not line up with the flap trailing edges equally, adjust the aileron tab to obtain proper aileron position.

4. If airplane is wing heavy with ailerons in proper position, adjust the rear strut fork on the wing heavy side inward to obtain correct trim. Each ten degrees of wing heaviness in flight requires approximately one turn of the strut fitting.

5. If the airplane skids in flight when the wings are level, it is out of rig directionally. To correct this condition, bend the leading edge of the fin in the direction towards which the airplane skids. Be careful not to depress the fin far enough to cause fabric wrinkles.

6. After the plane is trimmed properly directionally and laterally, tighten the interconnecting cables with the coil springs just beginning to become extended.

7. Check the trim of the plane in flight again to see that trim has not been affected by step 6, and to see that interconnecting cables are at correct tension to give properly coordinated controls. If the interconnecting cable tension is excessive, too much rudder movement will result from aileron movement, causing a skid. If the cables are not tight enough, the rudder will not move far enough when the control wheel is rotated to give coordinated turns. Proper tension will give coordinated turns at cruising speeds when either the wheel or the rudder controls are moved.