

THE NEW PIPER AIRCRAFT, INC.
PA-46-350P, MALIBU MIRAGE
MAINTENANCE MANUAL

C. Aileron Controls Rigging and Adjustment

- (1) Lock the control wheels together in the aileron neutral position using a suitable tool.
- (2) Lock the ailerons in neutral position using a suitable contour fixture at the inboard ends of the ailerons. Neutral position is defined by wing loft contour at this location.
- (3) Adjust the aileron control cables to a tension of 30 ± 5 pounds.
- (4) Remove the locking fixtures. Aileron neutral position should be maintained at 0 ± 1 degree with the control wheels in neutral.
- (5) Use the pilot's control wheel to move the ailerons and adjust the aileron travels at the primary stops (at the aileron drive sectors on the wing spars) to give the ailerons their 18 ± 1 degree up and down movement.
- (6) Use the pilot's control wheel to hold the ailerons firmly against the primary stops. Adjust the secondary aileron stops (on the forward pressure bulkhead) to maintain a cushion (gap) of 0.09 ± 0.03 inch in each direction.
- (7) Check system for proper operation.

CAUTION: VERIFY FREE AND CORRECT MOVEMENT OF AILERONS. WHILE IT WOULD SEEM SELF-EVIDENT, FIELD EXPERIENCE HAS SHOWN THAT THIS CHECK IS FREQUENTLY MISINTERPRETED OR NOT PERFORMED AT ALL. ACCORDINGLY, UPON COMPLETION OF AILERON RIGGING AND ADJUSTMENT, VERIFY THAT THE RIGHT AILERON MOVES UP AND THE LEFT AILERON MOVES DOWN WHEN THE CONTROL WHEEL IS TURNED RIGHT; AND THAT THE LEFT AILERON MOVES UP AND THE RIGHT AILERON MOVES DOWN WHEN THE CONTROL WHEEL IS TURNED LEFT.

4. Aileron Tab

A fixed trim tab is located on the trailing edge of the right aileron. The tab is ground adjustable only.