

August 7, 1972

SERVICE BULLETIN NO. 6

APPLICABILITY: Accomplishment of this Service Bulletin is mandatory.

This bulletin applies to Model S-2A airplanes from Serial No. 2001 through Serial No. 2030.

PURPOSE: To prevent failure of the horizontal stabilizer leading edge support tube.

DISCUSSION: It has come to our attention that a failed horizontal leading edge support tube, (part no. 2-2123), has been discovered. The failure occurred by cracking through the holes for the AN 3 bolt which secures the horizontal stabilizer leading edge tube to the leading edge support tube. It was the leading edge support tube, (the inside tube which is bolted to the fuselage), which failed. The failure was caused by improper ground-handling of the aircraft, (picking up the tail by the stabilizer leading edge, or sitting on it), and not by flight loads, but in any event, compliance with this Bulletin should prevent any future occurrences.

ACCOMPLISH THE FOLLOWING:

1. Remove the left and right horizontal stabilizers as follows: (NOTE: keep track of all hardware and replace the same parts in their original locations except as noted.)
  - a) disconnect the elevator trim tab push rods from the horns beneath the stabilizers. (leave the rods connected to the tab horns.) NOTE: Some airplanes may have AN 310-1032 nuts and AN 380 cotter pins installed on these AN 3 bolts, instead of AN 365-1032 nuts. If so, you may either reinstall the AN 310-1032 castle nuts with new AN 380 cotter pins, or use AN 365-1032 self-locking nuts, and undrilled bolts.)
  - b) remove the two AN 4 bolts through the flying wire lugs and elevator hinges, left and right. Note that it is not necessary to loosen the flying wires.
  - c) remove the four AN 3 bolts through the stabilizer leading edge and trailing edge tubes, left and right. Note it is not necessary to remove the stabilizer root fairings.
  - d) remove the access plates adjacent to the stabilizer trailing edge, reach inside the aft fuselage and remove the two AN 3 bolts through the elevator trim control shaft. Note that it is not necessary to disconnect the elevator horn.
  - e) remove the left and right stabilizers by pulling them straight outboard.
2. Thoroughly clean with solvent the exposed portions of the 2-2123 stabilizer leading edge support tube which protrudes from the fuselage. Dye-check the region of this tube in the vicinity of the AN 3 bolt holes, and visually inspect for cracks.
  - a) if cracks are noted, order a replacement part no. 2-2123 assembly from Aerotek, Inc., P.O. Box 547, Afton, Wyoming, 83110, attention Mr. E.H. Andersen.
  - b) if no cracks are noted, accomplish the following:


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3. Cut off the outer ends of the 2-2123 stabilizer leading edge support tube so that the dimension from the center of the AN 3 bolt hole to the outer end of the tube is 1 2 inch, left and right sides. Remove all burrs and rough edges.
4. Run a number 10 drill, (.193 to .199 dia.), through the AN 3 bolt holes in the 2-2123 stabilizer leading edge support tube, and through the mating holes in the stabilizer leading edge tubes, left and right.
5. Zinc chromate bare metal surfaces from 3. and 4. above.
6. Reassemble in reverse order from Step 1. above.
7. Stencil on the upper surfaces of both the left and right horizontal stabilizers, near the leading edge, the words "NO HIT", in letters one half inch high or higher, and of a color which contrasts sharply with the paint finish on the stabilizer.

COMPLIANCE DATE: Fill out and return the enclosed compliance card to Pitts Aviation Enterprises, Inc., P.O. Box 543, Homestead, Florida 33030, no later than August 28, 1972.

GENERAL: The work described in this Bulletin will require one man working approximately three hours to accomplish.

APPROVED BY:

  
E. F. Dearing, Chief Engineer  
Pitts Aviation Enterprises, Inc.

FAA APPROVED.