



SERVICE BULLETIN

No. 540A

Piper Aircraft Corporation

Lock Haven, Pennsylvania, U.S.A.

Modification FAA/DOA EA-1 Approved

October 20, 1980

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(Service Bulletin No. 540A supersedes and voids Service Bulletin No. 540, dated January 4, 1977.)

Subject:

Inspection and Reinforcement of Stabilator Tip Tube and Weight Assembly.

Reason for Revision:

To announce the availability of the Kit(s) which will relieve the inspection requirements of Service Bulletin No. 540 and to revise Serial Numbers Affected.

Models Affected:

PA-23-250 (6 place) Aztec "F"

Serial Numbers Affected:

27-7654001 through 27-7954035
(See Compliance Time, below.)

Compliance Time:

1. Serial Numbers 27-7654001 to 27-7754057 Inclusive: within the next ten (10) hours of operation (reference Instructions, below for further information regarding compliance time requirements).
2. Serial Numbers 27-7754058 to 27-7954035 Inclusive: inspect per attached sketch/instruction data (steps 1 and 2) at each 100 hours of operation.
3. All affected Aztec "F" aircraft; install appropriate kit(s) at Owner/Operator's discretion to relieve repetitive inspection requirement.

NOTE:

Continued inspection of the affected area at intervals appropriate to the airplane operation regulations are encouraged as part of good maintenance practices.

Purpose:

Field reports indicate cracks have been found in the Stabilator Tip Tube and Weight Assembly, Piper Part Number 15658-20. The cracks may be located at either or both ends of the squared tube portion of the assembly (i.e., where the tube joins the weight, and/or where the tube joins the outboard rib attachment plate). If cracks are present - and corrective action not taken - this condition could result in separation of the weight from the tube.

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Purpose: (continued)

This Service Bulletin provides instructions to inspect the Stabilator Tip Tube and Weight Assembly for above described cracks, provides instructions to reinforce this assembly, and also announces the availability of the appropriate kit(s) to relieve the inspection/reinforcement requirements of this Service Bulletin.

Instructions:

1. Initial (within 10 hours) inspection: inspect in accordance with attached sketch/instruction data.
2. If cracks are present, prior to further flight, modify in accordance with attached sketch/instructions, or install Stabilator Balance Weight Replacement Kit, Piper Part Number 763 987.

NOTE: If not previously installed (Refer to Piper Service Letter No. 807A to identify affected aircraft), Stabilator Outboard Nose Rib Installation Kit, Piper Part Number 761 141, may have to be installed prior to or in conjunction with Kit 763 987.

3. Make appropriate Service Bulletin compliance entry in aircraft log book.
4. If cracks are not present during the initial 10 hour inspection, the modification described on the attached sketch/instruction data or installation of the **above-referenced** Kit(s) must be accomplished at the next regularly scheduled inspection interval, not to exceed the next 100 hours of operation.
5. The inspection provisions of this Service Bulletin shall be accomplished at each subsequent 100 hour inspection interval unless/until Kit 763 987, and if required Kit 761 141, is (are) installed.

Material Required:

1. For reinforcement: refer to attached sketch/instruction data for material requirements.
2. For replacement: one (1) each per aircraft Stabilator Balance Weight Replacement Kit (Piper Part Number 763 987) and, if required (Refer to Piper Service Letter No. 807A to identify affected aircraft), one (1) each per aircraft Stabilator Outboard Nose Rib Installation Kit, Piper Part Number 761 141.

Availability of Parts:

Material for reinforcement available locally; kits available through Piper Field Service Facility.

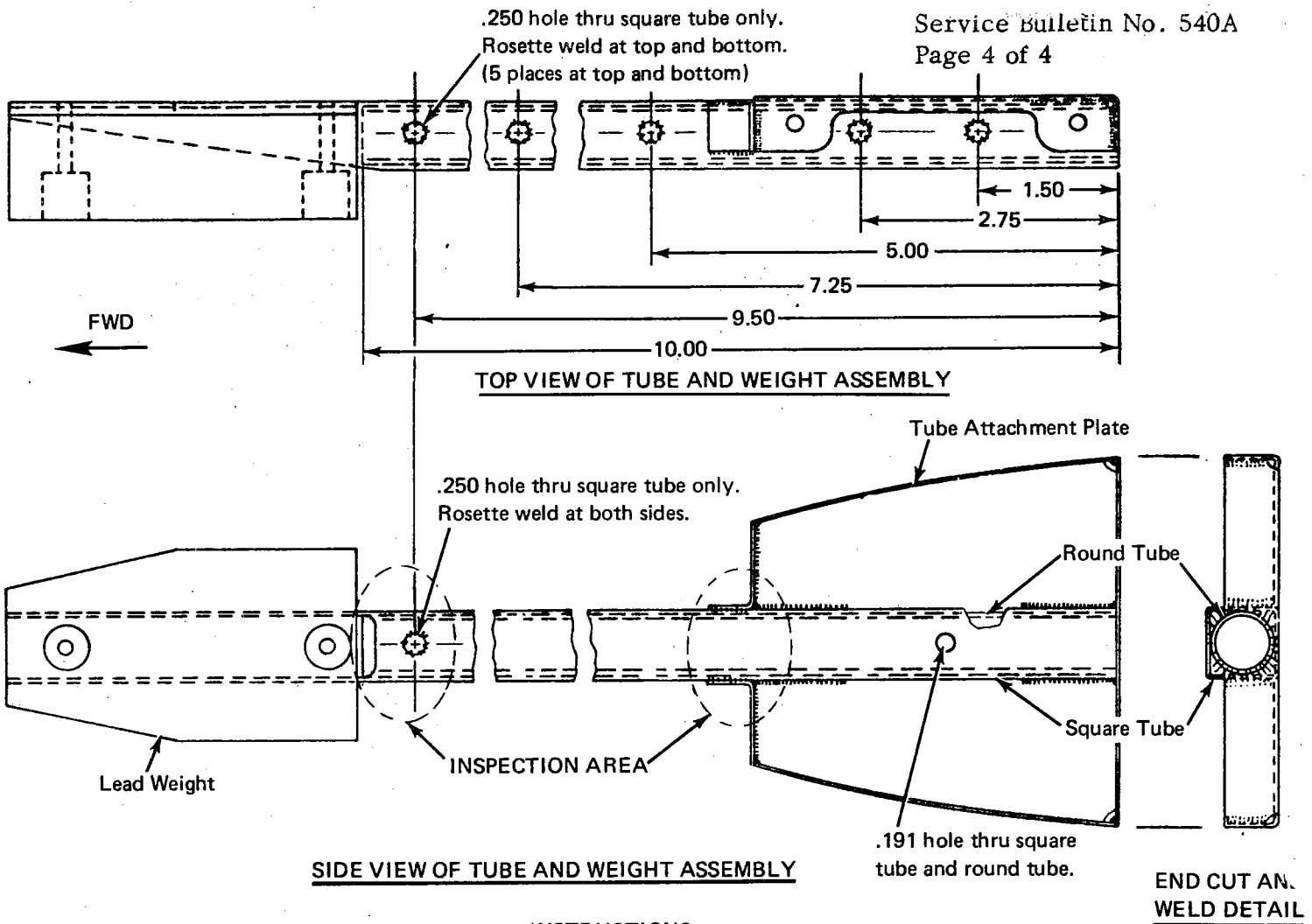
Effectivity Date:

This Service Release is effective upon receipt.

Summary:

Please contact your Piper Field Service Facility to make arrangements for compliance with this service release in accordance with Compliance Time, above.

Any applicable Factory Participation will remain in effect for a period of time not to exceed 180 days from the date of this Service Release.



INSTRUCTIONS

1. Remove tip assembly from left and right stabilizers.
2. Using a magnifying glass, inspect the square tube on the tube and weight assemblies to determine if any cracks are evident. See inspection area on above sketch.
3. If cracks are not detected in either tube, the modification contained herein may be accomplished at any time not to exceed the next 100 hours of operation. Make proper logbook entry of inspection provision on Service Bulletin 540 and at the time of modification, make proper logbook entry of Service Bulletin 540 compliance. Reinstall the tip assemblies to the stabilizers.
4. If any cracks are detected, modify both tube and weight assemblies per the following steps.
 - a. Remove tube and weight assembly (P/N 15658-20) from both stabilizers. Retain screws, washers and nuts for reinstallation.
 - b. Cut or drill hole in the end of the tube attachment plate to allow a 5/8 inch diameter tube to be inserted into the square tube.
 - c. Locate and drill twelve (12) .250 holes in the square tube as shown.
 - d. Insert a 10 inch length of round steel tube (5/8" x .058 Type 4130 Cond. N) into the square tube and rosette weld the tubes together at the twelve (12) .250 holes.
 - e. Weld shut the area around the hole in the attachment plate and the tubes.
 - f. Weld all cracks shut that were discovered when inspecting the square tube. CAUTION: If welding cracks near the lead weight, use TIG or MIG weld instead of Oxy-Acetylene.
 - g. Drill a .191 hole through the round tube using existing hole in square tube as a guide.
 - h. Clean, prime and paint tube and weight assembly.
 - i. Reinstall the tube and weight assembly to the stabilizer using existing attachment hardware.
 - j. Reinstall the tip assembly to the stabilizer.
 - k. Refer to paragraph 4-65 in the Aztec Service Manual and balance the stabilizer.

NOTE

If stabilator cannot be properly balanced with the trim weights at the stabilator balance arm, it is permissible to remove up to 1/4 inch material from the forward ends of the lead weights on the stabilator tips. (Remove equal amount from both lead weights).

- l. Make proper logbook entry of stabilator tube and weight modification per Service Bulletin 540.

NOTE: Round steel tube (10" x 5/8" x .058 Type 4130 Cond. N) should be procured locally if possible. If necessary, tube may be ordered from Piper Aircraft Corp. under Part No. 15589-05.