



# SERVICE BULLETIN

No. 549

Piper Aircraft Corporation

Lock Haven, Pennsylvania, U.S.A.

"Modification DOA EA-1 Approved"

February 16, 1977 M

<u>Subject:</u>	Elevator Bungee Link Modification
<u>Models Affected:</u>	<u>Serial Numbers Affected:</u>
PA-31, PA-31-325 Navajo.....	31-7612001 to 31-7612080 Inclusive; 31-7612082 to 31-7612091 Inclusive; 31-7612096; 31-7612099; 31-7612101; 31-7612102; 31-7612104; 31-7612105; 31-7612107 and 31-7612108.
PA-31-350 Navajo Chieftain.....	31-7652001 to 31-7652015 Inclusive; 31-7652017 to 31-7652162 Inclusive; and 31-7652164 to 31-7652170 Inclusive.

Compliance Time: At the next scheduled inspection interval (Programmed Inspection Event, etc.), not to exceed the next fifty (50) hours of operation.

Purpose: During routine factory elevator control rigging/adjustment procedures involving the above referenced aircraft, the specified elevator bungee ("down") spring tension was, in some instances, not obtained due to insufficient adjustment at the elevator bungee link. This condition can be resolved by drilling additional spring attachment/adjustment holes, permitting additional (if necessary) spring tensioning.

This Service Release provides instructions to modify the elevator bungee link by adding spring attachment/adjustment holes (as denoted on attached sketch/instruction data) - if necessary to obtain sufficient elevator bungee spring tension.

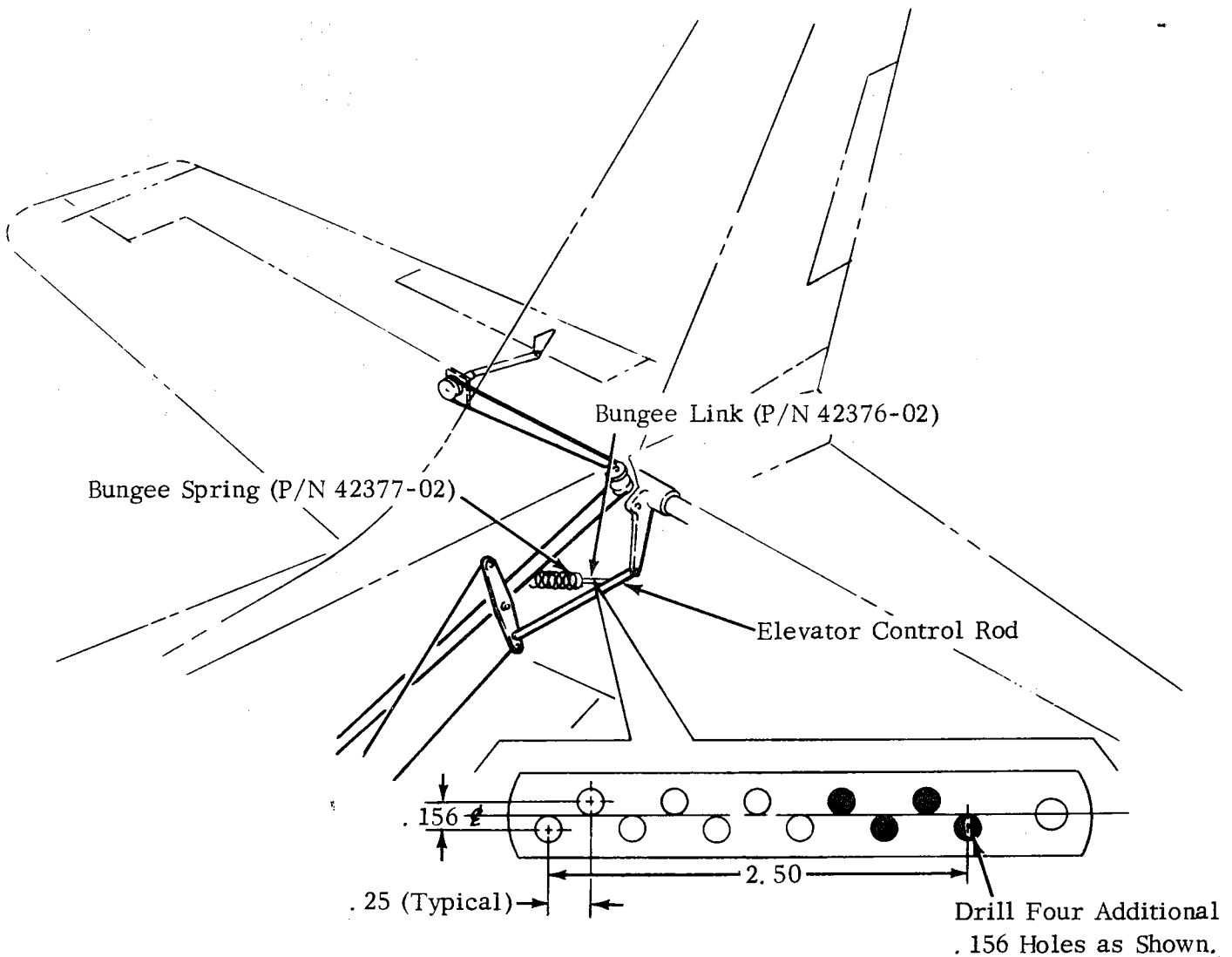
Instructions: Contained on attached sketch/instructions data; also, reference appropriate service manual, "Rigging and Adjustment of Elevator Controls" data.

Material Required: None

Availability of Parts: Not Applicable

Effectivity Date: This Service Release is effective upon receipt.

Summary: Please contact your Piper Field Service Facility to make arrangements for compliance with the provisions of this Service Release as specified in Compliance Time, above.



### BUNGEE LINK REWORK DETAIL

#### INSTRUCTIONS

1. Remove bottom half of tail cone and side access plate from aft fuselage to gain access to elevator bungee spring and link.
2. Disconnect the bungee spring from the link and remove hardware attaching the link to the elevator control rod.
3. Rework the bungee link by locating and drilling four additional .156 holes as shown in above detail.
4. Reinstall link to control rod using existing hardware.
5. Connect a spring scale to the aft end of the bungee spring and pull rearward until proper tension is obtained with the elevator in the neutral position.

Proper tension for PA-31 is 30 lbs.  $\pm$  1 lb.

Proper tension for PA-31-325 & PA-31-350 is 37 lbs. + 1 - 0 lbs.

At this point, observe which hole in the link is in line with the hook at the end of the spring and connect the spring into this hole. If necessary, cut off excess link material (.188 min. edge distance) for ease of spring attachment. (Reference "Rigging and Adjustment of Elevator Controls" in appropriate Service Manual.)

6. Reinstall access plate and bottom half of tail cone to aft fuselage.
7. Make proper Logbook entry of Service Letter compliance.