



# SERVICE BULLETIN

No. 146B

Piper Aircraft Corporation

Lock Haven, Pennsylvania, U.S.A.

October 25, 1962

F.A.A. Approved

SUBJECT: Elevator Butt Rib and Torque Tube Attachment Casting Cracks

MODELS AFFECTED: PA-23 Apaches - Serial Nos. 23-1 to 23-1284 incl., and 23-1286

This Bulletin supersedes Service Bulletin No. 146A issued April 9, 1957, the only change being the addition of aircraft serial numbers.

Investigation of field reports reveal that cracks have occurred in the butt rib and doubler plate of the PA-23 elevators. These cracks were caused by a slight misalignment between the elevator torque tube and the elevator assemblies. Also cracks have been found in the torque tube attachment casting, part number 17033-00, which were caused by over-tightening of the attachment bolts.

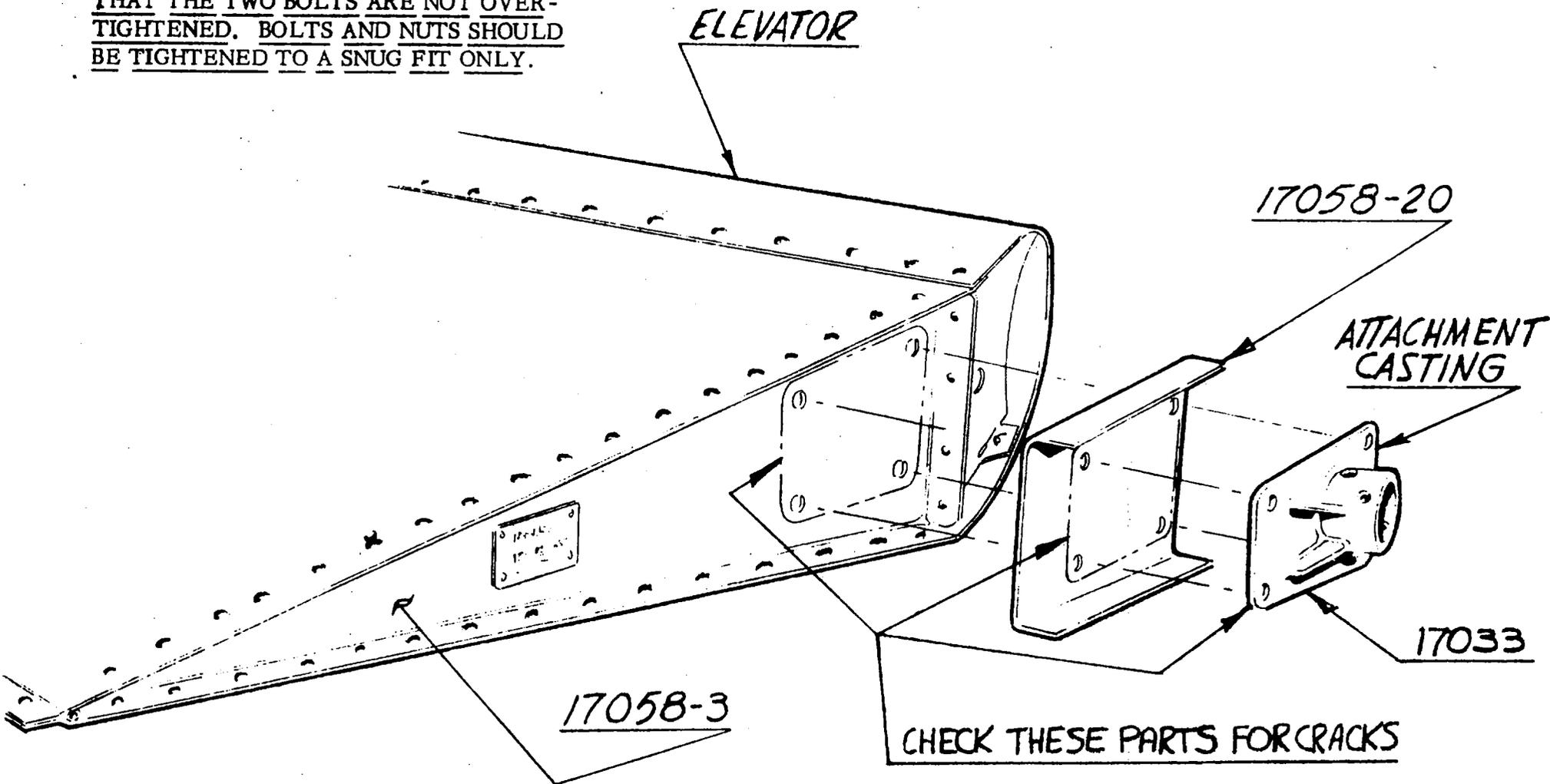
It is requested that the affected parts indicated on the accompanying sketch be inspected immediately and every 100 hours thereafter and if the rib, doubler plate or casting is cracked, it should be replaced with a new part. It will be necessary to remove the complete elevator torque tube assembly in order that the casting, part number 17033-00, can be taken off and inspected. After repairs have been made, it is important that the alignment of both elevator assemblies be accomplished in the following manner:

1. Assemble the elevator torque tube and both elevators into a single unit.
2. Hold complete assembly in attachment position and check alignment of the five hinge holes. All hinge pins should be a slip fit.
3. If the pins are not a slip fit, add shims under the torque tube attachment casting (shown on accompanying sketch) to obtain proper fit and alignment.
4. Install complete assembly to aircraft and safety.

This general condition may also cause cracks to appear in the elevator and stabilizer skin. Inspection of the tail surface skins should also be accomplished after each 100 hours of flight. If skin cracks appear they should be repaired in accordance with C.A.M. 18. Surface skin cracks sometimes precede butt rib cracks and we would like to suggest that elevator alignment be accomplished if it becomes necessary to effect tail surface skin repairs.

(Over)

NOTE  
WHEN REINSTALLING ATTACHMENT  
CASTING MAKE ABSOLUTELY CERTAIN  
THAT THE TWO BOLTS ARE NOT OVER-  
TIGHTENED. BOLTS AND NUTS SHOULD  
BE TIGHTENED TO A SNUG FIT ONLY.



ELE. BUTT RIB & ATTACHMENT CASTING	
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