

This Service Letter reidentified as
Service Bulletin M 20-46
per Service Instruction M20-15.

MOONEY AIRCRAFT INC.
SERVICE LETTER 20-46

(This S. L. is F. A. A. Approved)

Date: 4-22-59

Subject: Inspection of Empennage Components

Models Affected: As noted below

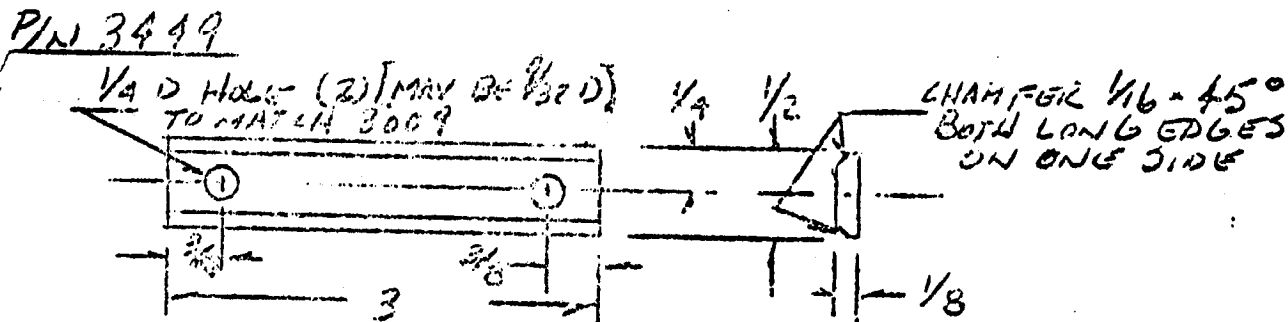
Time of Compliance: To be accomplished immediately in conjunction with FAA telegraphic airworthiness directive, issued 4-22-59, concerning P/N 3009 (See Item 1 Below for Contents of A. D. Note)

1. On M20 & M20A all Serial numbers remove and inspect immediately the empennage to fuselage upper attach bracket Part No. 3009 for cracks in bend radii near bolts. Remove paint and use dye penetrant and a ten power glass. Replace all cracked brackets and all brackets damaged by bolt head bearing in radius area of brackets with identical new brackets using 1/8 inch longer bolt, AN4-16A, and 1/8 inch by 1/2 inch by 3 inch -- 1010 cold rolled steel bearing plates Part No. 3449, under the heads of bolts attaching brackets Part No. 3009 to fuselage bulkheads. Bearing plates Part No. 3449 may be made using Part No. 3009 bracket to locate over-size 9/32 inch holes for attach bolts and by filing 1/16 inch by 45 degree chamfer along edges to provide clearance at radii of brackets. Drill and deburr bearing plates. All brackets found satisfactory may be reinstalled provided they are installed with AN4-16A bolts and the above bearing plates, Part No. 3449. Washers on airplanes Serial Numbers 1359 and up shall be replaced with bearing plates.

See drawing of P/N 3449 below.

2. On M20 & M20A Ser. No. 1002 thru 1400 inspect the (2) vertical bolts (AN3-43A), attaching horizontal stabilizer spar to tail truss, on the under side of the spar for bending of the bolt due to interference between nut and stinger longeron angle. If bolts are bent, they must be replaced and the stinger longeron angle cut out around bolt hole (Use a 1/2 inch diameter spot facing tool) to clear nut. Caution: Do not damage stinger attach fitting (P/N 3181) during spotfacing operation).

3. On M20 & M20A Ser. No. 1002 thru 1400 inspect for rub between rudder and right elevator control tubes and between rudder control tube and tail truss. For clearance the rudder control tube should be bowed down 1/2 inch at a point approximately 10 5/8 inches from forward end and the right elevator control tube should be bowed down 1/4 inch at a point approximately 10 inches from the forward end. If control tubes are seriously worn, they must be replaced with new tubes which are now being manufactured to allow more clearance. If a slight rub exists, coat area with graphite impregnated motor oil.



NOTE:

1) PRINING

2) MATERIAL - 1010 COLD ROLLED STEEL OR BETTER