

**THIS BULLETIN IS FAA APPROVED FOR ENGINEERING DESIGN**

SERVICE BULLETIN M20-278

- SUBJECT:** Wing Flap Actuator Bracket Repair
- MODELS/ S/N** M20M, Serial Numbers 27-0306 thru 27-0311
AFFECTED: M20R, Serial Numbers 29-0247 thru 29-0261, 29-0263, 29-0266, 29-0268 thru 29-0271,
29-0275
M20S, Serial Numbers 30-0056 thru 30-0058
- TIME OF COMPLIANCE:** AT THE NEXT SCHEDULED ANNUAL OR 100 HOUR INSPECTION
- INTRODUCTION:** There is a possibility that the affected aircraft may have flap actuator mounting brackets (part number 750096-7 and -9) installed which contain over tolerance holes drilled for the actuator mounting bolt. This service bulletin contains procedures for the one-time repair or replacement, as applicable, of the affected part. Aircraft within the affected serial number ranges above that have satisfied the requirements of Mooney drawing 940154, satisfy the requirements of this Service Bulletin.
- INSTRUCTIONS:** Utilizing the applicable Service and Maintenance Manual, accomplish the following:
1. Remove the affected aircraft's belly access panels.
 2. Remove actuator mounting bolt and support actuator.
 3. Inspect flap actuator mounting holes (2) in the 750096 bracket (figure M20-278-1).
 - A. If hole size is .250 / .254 no further action or inspection is required; go to step 9.
 - B. If hole size exceeds .3125 inch diametrical dimension, replace oversize or damaged 750096 bracket.
 - C. If hole size is not between the 0.250 / 0.254 inch diameter limit, and does not exceed .3125 inch diametrical dimension, proceed with the following steps.
 4. Locate 750096-1 doublers as shown in figures M20-278-2 and M20-278-3. Secure doublers with actuator mounting hardware and 914020-29 bushing.
 5. Match drill four #30 drill holes thru the -1 doublers and install CR3213 rivets as shown in figure M20-278-2.
 6. Reinstall actuator with new hardware (figures M20-278-3 and M20-278-4).
 7. Inspect area and secure components per good aircraft maintenance practice.
 8. Install belly panels.
 9. Make logbook entry indicating compliance with this service bulletin. Weight and balance is not affected by this repair procedure. No further inspection or action is required.

WARRANTY: Up to 1.0 hour labor (no flap actuator bracket replacement) or 3.0 hours labor (with flap actuator bracket replacement), plus the cost of replacement parts (if needed), will be credited to the Mooney Service Center for compliance to the instructions contained in this Service Bulletin, if the affected aircraft is still under warranty and warranty claim is received within one year of the date of this Service Bulletin.

Labor and/or replacement parts (if needed) **will not be covered** under Mooney Aircraft Corporation's warranty policy for affected aircraft that are beyond their respective warranty agreement.

REFERENCE DATA: Service & Maintenance Manual #151 (M20M), #160 (M20R), #170 (M20S), latest revisions

PARTS LIST: Kit Part Number: 940154-501

<u>ITEM</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
1	940154-1	Doubler	2
2	914020-29	Bushing	1
3	AN4-16A	Bolt	1
4	AN960-416	Washer	1
5	MS21045L4	Nut	1
6	CR3213-4-2	Rivet	8

FIGURE/TABLES: Reference figures M20-278-1 thru M20-278-4

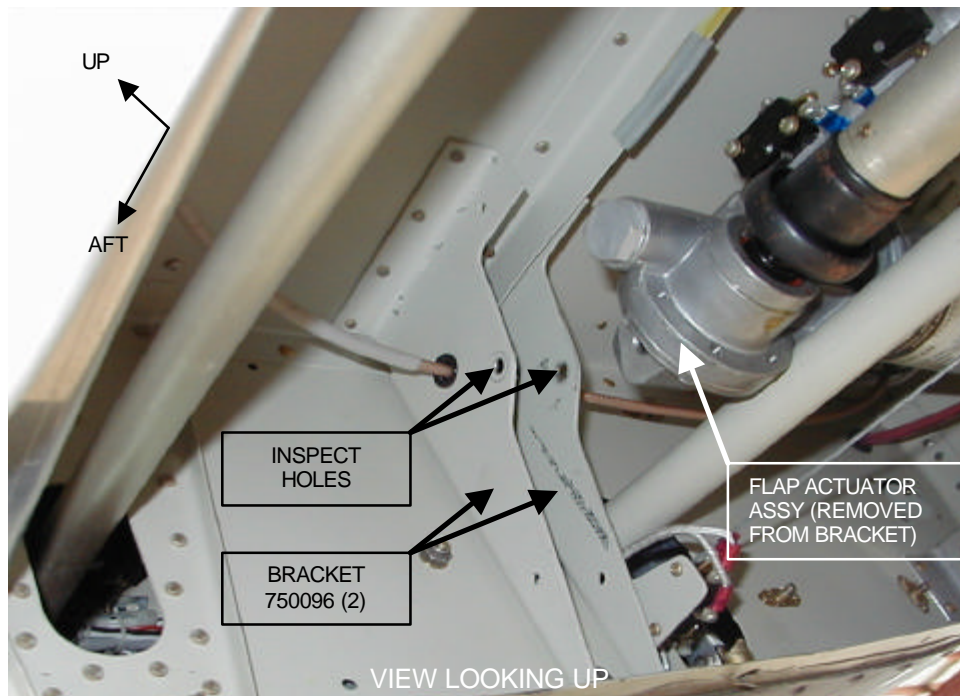


Figure M20-278- 1

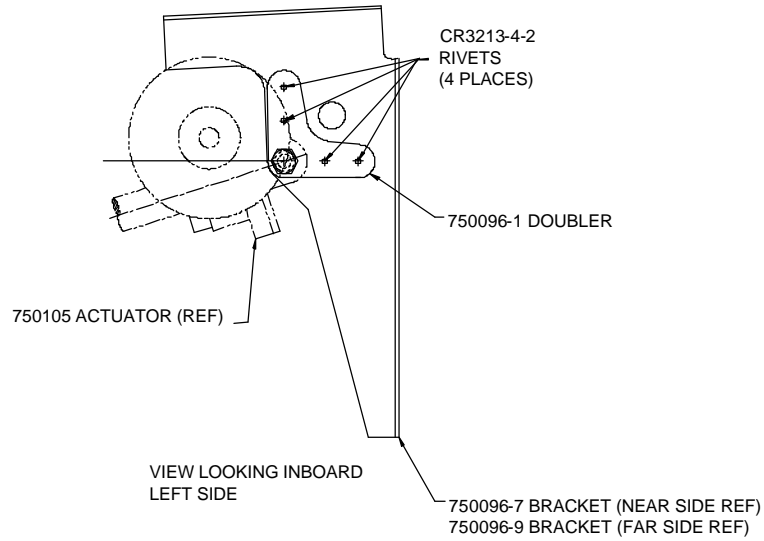


Figure M20-278- 2

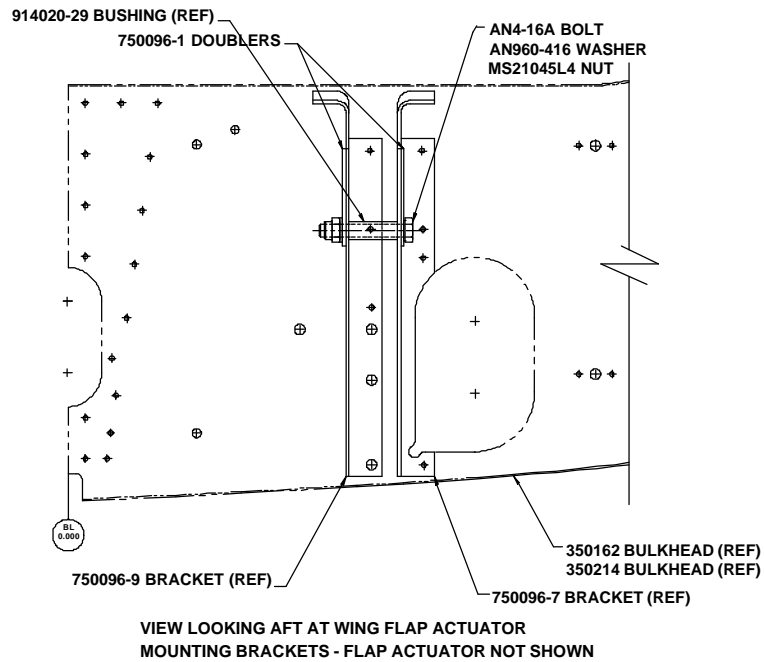


FIGURE M20-278- 3

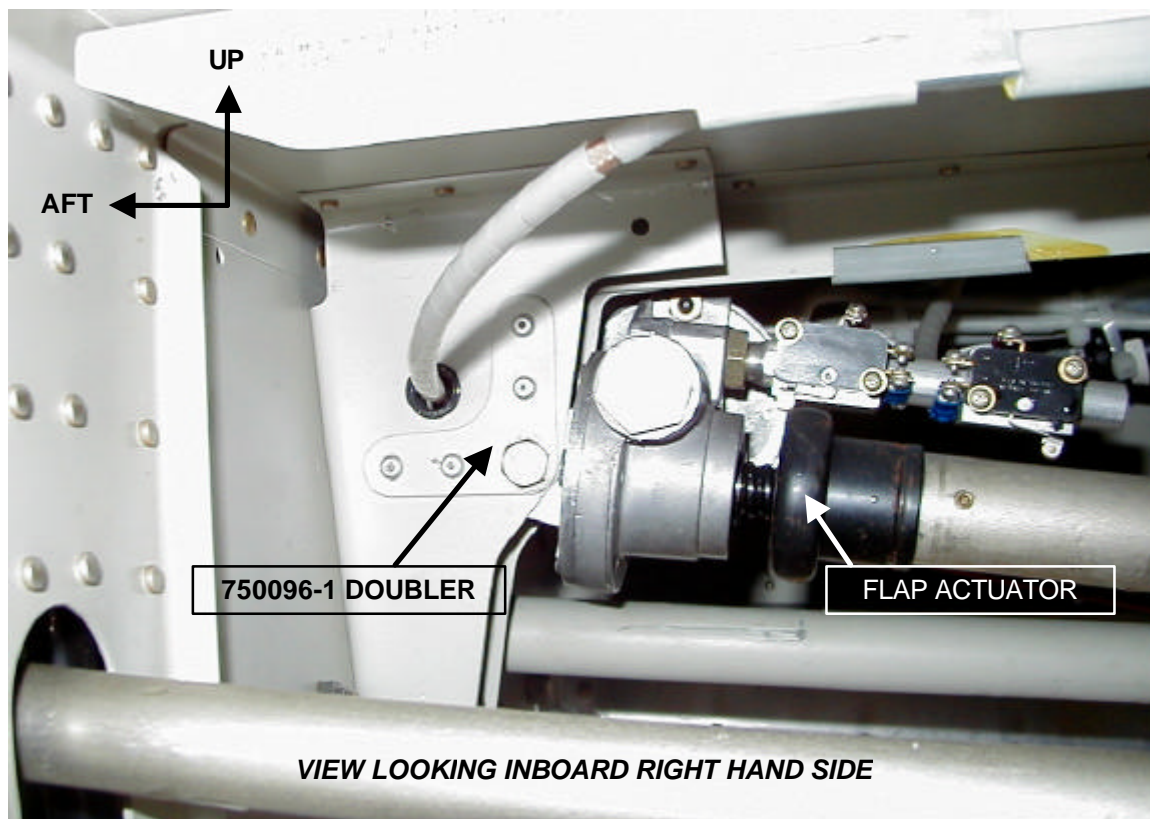


Figure M20-278- 4