

SUBJECT:

REWORK OF COWL FLAPS

MODELS

M20J S/N 24-0001 thru 24-0763 - Hinge Modification

AFFECTED:

M20J S/N 24-0001 thru 24-0854 - Doubler Modification

TIME OFCOMPLIANCE:At next 100 hr. inspection or annual,
whichever comes first.INTRODUCTION:

Instances of cowl flap hinge points and cowl flap baffle plates cracking in service have been reported. The castellated nuts do not allow a uniform torque to be administered at installation. This Service Bulletin modifies this attach point and strengthens the baffle by adding a doubler.

INSTRUCTIONS:

- 1) Remove lower cowling from aircraft per Service Manual, Paragraph 3-1, disconnecting all electrical and mechanical connections.
- 2) Remove both cowl flaps from lower section of engine cowl.
- 3) Drill out rivets and remove shim plate NAS463W10 (4 places) from all cowl flap baffles at hinge attach points (Ref. Figure 1).
- 4) Install plate nut MS21047L3 (4 places) using (2) MS20426AD3 rivets at each location on all cowl flap baffles. (Ref. Figure 1).
- 5) Drill or ream holes in cowl flap hinges (650193, 650198) (4 places) to a diameter of .313/.317 inches to accept bushing P/N 914090-1. This completes the hinge point modification.
- 6) Carefully drill out the aft three (3) rivets that partially attach the baffles, P/N 650195-1 and 650196-1, -2 to the cowl flaps (Ref. Figure 2). (Part number 650195-2 is a short baffle and does not require a doubler).

Attach doublers to appropriate baffles (See Figure 2) with clecos and mark location of holes to be drilled in baffles using the doublers as templates. Disassemble and drill holes for riveting doublers to baffles. Attach doublers to baffles using standard procedures and rivets called out.

Instructions cont...

- 7) Reassemble the modified cowl flaps to the engine cowls (Reference Figure 1) using the bolts, nuts and bushings included in this kit. Torque the AN3-5A bolts (4 places) to 15-20 inch pounds.
- 8) Reassemble the lower engine cowl to the aircraft per Service Manual and rig the cowl flaps per Paragraph 3-24 of Service Manual.
- 9) Make entry of compliance into Aircraft Log Book and fill out the enclosed compliance card and return to: Customer Service, Mooney Aircraft Corporation, P.O. Box 72, Kerrville, TX 78028.

REFERENCE

DATA:

- 1) Mooney M20J Service & Maintenance Manual Paragraph 3-1, 3-24

PARTS LIST:

S.B. M20-218-1 Kit, S/N's affected: 24-0001 thru 24-0763

	<u>Quantity</u>	<u>Part Number</u>	<u>Description</u>
1)	4	AN3-5A	Bolt
2)	4	AN960-10	Washer
3)	8	AN960-516	Washer
4)	4	MS21047L3	Plate Nut
5)	1	650195-3	Doubler
6)	1	650196-3	Doubler
7)	1	650196-4	Doubler
8)	4	914090-1	Bushing

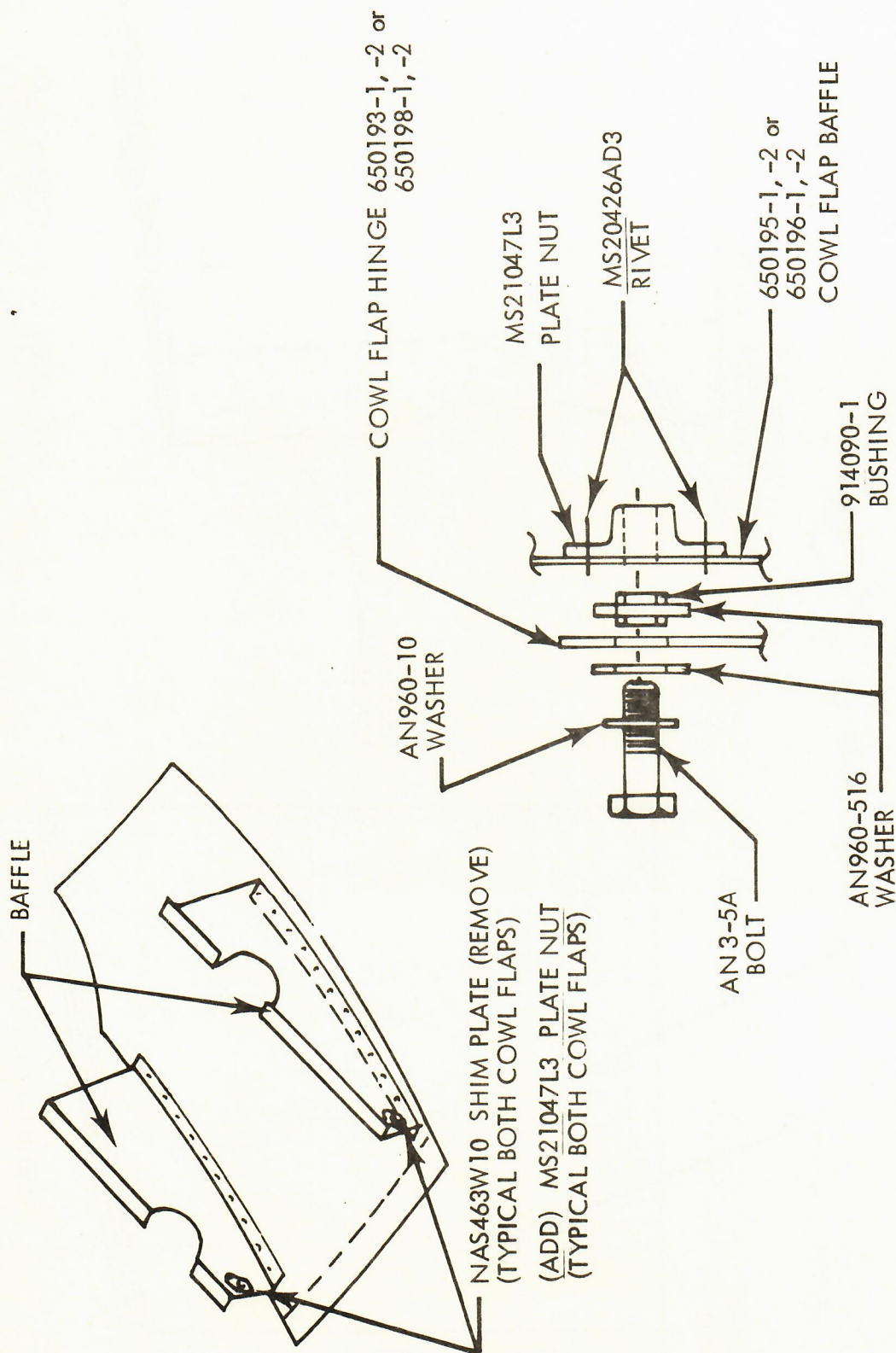
This kit is available through your local Mooney Aircraft Marketing or Service Center.

S.B. M20-218-2 Kit, S/N's affected: 24-0764 thru 24-0854

	<u>Quantity</u>	<u>Part Number</u>	<u>Description</u>
1)	1	650195-3	Doubler
2)	1	650196-3	Doubler
3)	1	650196-4	Doubler

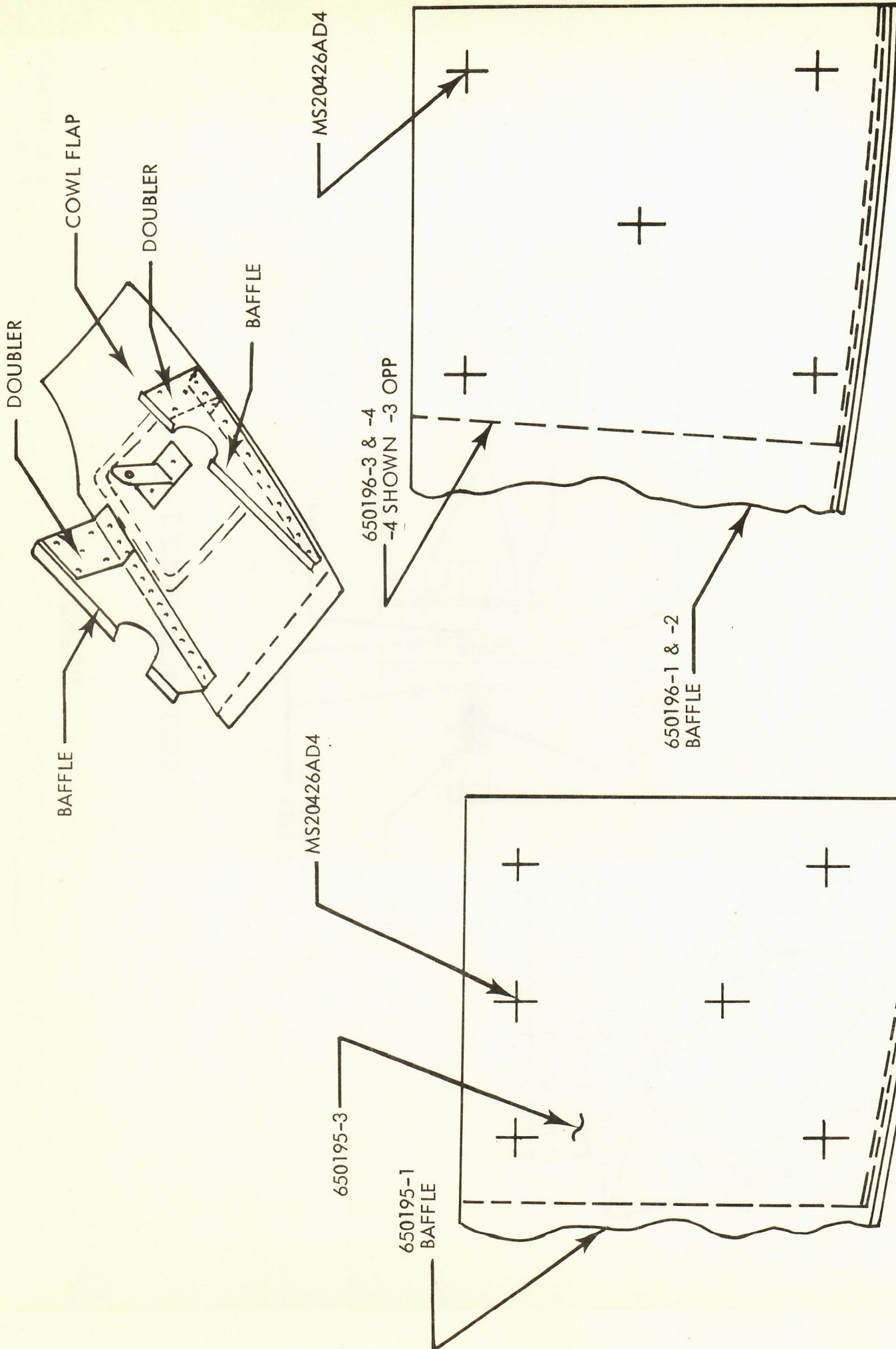
Instructions No. 1, 2, 6-9 apply to M20-218-2 kit installation. This kit is available through your local Mooney Aircraft Marketing or Service Center.

FIGURES/
TABLES:



COWL FLAP HINGE POINT

FIGURE 1



TYP. 650197-1 & -2 COWL FLAP

650197-1 COWL FLAP

FIGURE 2