

THIS SERVICE BULLETIN FAA APPROVED FOR ENGINEERING DESIGN

MOONEY AIRCRAFT CORPORATION
LOUIS SCHREINER FIELD
KERRVILLE, TX 78028

SERVICE BULLETIN M20-239A
June 13, 1989

Revision A issued to clarify Steps 2, 9 & 17 and to correct Step 10.

SUBJECT: BAGGAGE DOOR, INSIDE LATCH MODIFICATION

MODEL/S/N M20J: S/N 24-0084, 24-0378 THRU 24-1645, 24-3000 THRU 24-3056
EFFECTIVITY M20K: S/N 25-0001 THRU 25-1160

TIME OF COMPLIANCE: WITHIN THE NEXT 25 FLIGHT HOURS OR AT NEXT SCHEDULED MAINTENANCE

INTRODUCTION: IT HAS BEEN DETERMINED THAT IMPROPER SECURING AFTER OPERATION AND FAILURE TO MAINTAIN THE INSIDE BAGGAGE DOOR LATCHING MECHANISM, COULD RESULT IN BAGGAGE DOORS COMING OPEN DURING TAKEOFF OR IN FLIGHT.

INSTRUCTIONS:

1. Open baggage door from outside aircraft.
2. Remove royalite covers from inside of baggage door.
3. Open the auxiliary exit handle according to the adjacent placard or the Pilot's Operating Handbook, SECTION III.

NOTE

M20J - S/N 24-0084, 24-0378 THRU 24-1381

M20K - S/N 25-0001 THRU 25-0754

Inspect baggage door inside latching mechanism and Log Book of above S/N aircraft to determine if S.I. M20-63 has been incorporated and if so, skip step 4. If not, proceed with step 4 to add modified clevis pin for attachment of spring, LE-029C-6.

4. Remove AN380-2-2 cotter pin from existing AN393-33 clevis pin in cam slot of red handle and remove existing clevis pin. Modified clevis pin, P/N 350190-001, (grooved for spring attachment) will be used in this location after red handle is modified and ready for reinstallation.
5. Remove AN380-2-2 cotter pin from clevis pin, AN393-35, that secures red handle to latch pivot point. Remove clevis pin and red handle from latching mechanism.
6. Remove white knob assembly from hole in red handle.
7. Modify large round hole in red handle to a slotted hole per Figure M20-239-1.
8. Remove existing clip, P/N 350191-003 or -005, from door frame by drilling out two (2) rivets.
9. Install 350191-9007 clip/pin assembly, with small hole toward red handle pivot point; locating pin relative to slot in handle as illustrated in Figure M20-239-2. Existing holes should line up; if not, drill two (# 30 drill) holes into baggage door using pilot holes in clip/pin assy as a guide. Install with two CR3213-4-2 rivets.
10. Install lanyard, P/N 90312A21, on red handle per Figure M20-239-2. Use CR3213-4-3 rivet and two AN960-4 washers (one under rivet head and one on back side of red handle).
11. Insert Hitch Pin, P/N 98335A044, on to lanyard loop.
12. Reinstall modified red handle to pivot point using original clevis pin and to the latch/rod mechanism using modified (grooved) clevis pin; use a new cotter pin, P/N AN380-2-2, for each clevis pin.
13. Attach spring, P/N LE-029C-6, between groove in modified clevis pin on red handle and small hole in 350190-9007 clip/pin assembly. New spring and clevis pin are in kit.
14. Check inside door latch mechanism operation to insure that spring pulls clevis pin into slots of outside handle when red handle is in the closed position. This automatic engagement should occur every time the red handle is opened and then closed. Lubricate latch mechanism per chart in CHAPTER 5 of Service and Maintenance Manual.

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15. Observe movement of latching rod arms as red handle is opened and closed; be sure rod arm link has been re-attached to red handle with the clevis pin.
16. Place red handle to the closed position and insert hitch pin through hole in AN393-7 pin, part of clip/pin assembly. This will secure red handle in the closed position.
17. Replace inside royalite covers over the latching mechanism and red handle.
18. Remove existing decal on baggage door royalite panel and install the 150080-834 decal included in this kit (See Figure M20-239-3) in same location.
19. Close baggage door from outside in normal manner.

NOTE:

It is recommended that the baggage door be SECURELY CLOSED AND locked, before flight.

20. The appropriate POH/AFM's, for the following Serial Numbered aircraft
 M20J: S/N 24-0084, 24-0378 thru 24-1645; & S/N 24-3000 thru 24-3056
 M20K: S/N 25-0001 thru 25-1160 are as follows:

M20J;	1221	REV.D	M20K:	1224	REV. F
	1223	REV. F		1226	REV. E
	1225	REV. D		1228	REV.D
	1227	REV. C		1230	REV. B
	1229	REV. A		1232	ORIG.
	1231	REV. A		1234	REV. C
	1233	REV. A		1236	ORIG.
	1233	REV. B		1236	REV. A

Ensure that the AFM Supplement, included as part of the Kit of this Service Bulletin, is incorporated into SECTION IX of the appropriate POH/AFM for the S/N of the aircraft modified with the instruction of this Service Bulletin. If Service Instruction M20-82 has been incorporated previously, the AFM Supplement relating to that modification can be discarded; this AFM Supplement supersedes it. Mark paragraphs in basic POH/AFM (refer to Supplement for specific page numbers) for reference to SECTION IX supplemental information.

21. Enter compliance note in aircraft logbook and return aircraft to service.

REFERENCE DATA: MOONEY SERVICE INSTRUCTIONS - M20-63, dated 4-12-83, and M20-82, dated 3-14-88.

WARRANTY: Mooney Aircraft Corporation will allow 1.0 hours labor to accomplish this Service Bulletin on affected aircraft in warranty as of the date of this bulletin. If Service Instruction's M20-63 and M20-82 have been accomplished (as verified by a proper logbook entry) the inspection time allowed will be 0.2 hours.

PARTS LIST: KIT PART NUMBER - M20-239-1

ITEM	PART NO.	DESCRIPTION	QTY
1.	350191-9007	CLIP/PIN ASSY	1
2.	90312A21	LANYARD ASSY	1
3.	98335A044.	HITCH PIN (ALT. AN415-4)	1
4.	CR3213-4-2	RIVET, CHERRY	2
5.	CR3213-4-3	RIVET, CHERRY	1
6.	AN960-4	WASHER	2
7.	150080-834	DECAL	1
8.	350190-001	CLEVIS PIN (MODIFIED AN393-33)	1
9.	LE-029C-6	SPRING	1
10.	N/A	AFM Supplement	1

FIGURE/
TABLES: SEE BELOW & NEXT PAGE

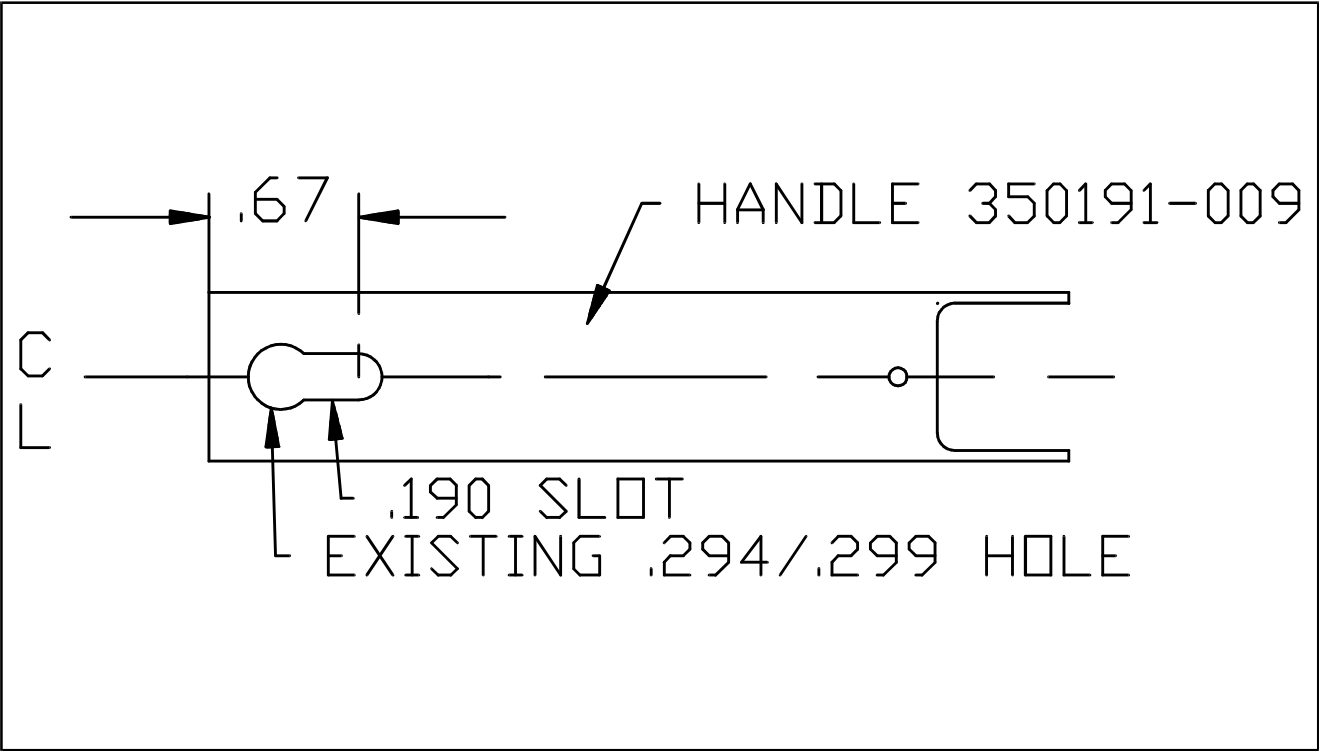


FIGURE M20-239-1

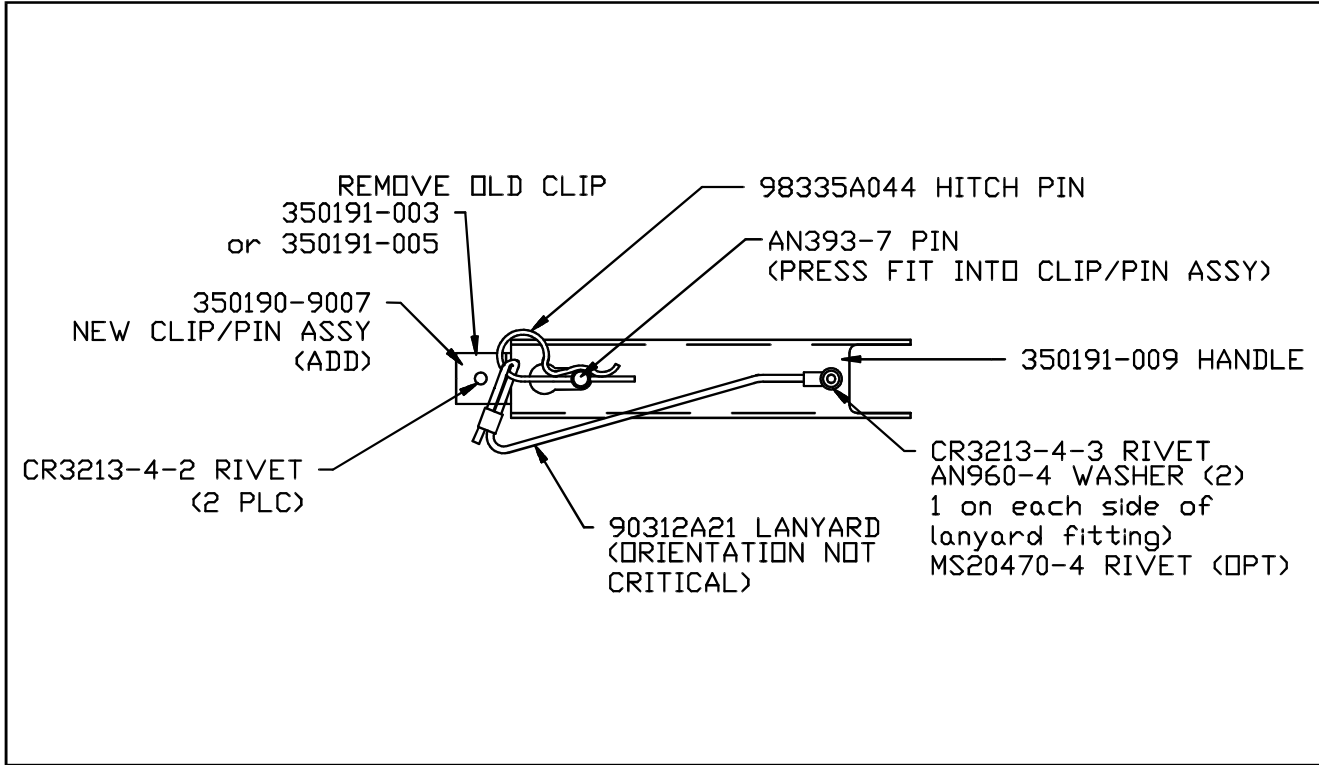


FIGURE M20-239-2

AUXILIARY EXIT

DO NOT OPEN IN FLIGHT
TO OPEN

150080-834

DECAL

1. PULL COVER OFF
2. PULL CABLE, EXTRACTING LOCK PIN
3. ACTUATE HANDLE

TO CLOSE

1. STORE HANDLE
2. INSERT LOCK PIN
3. INSTALL COVER
4. CLOSE AND LATCH DOOR USING
OUTSIDE HANDLE
5. LOCK DOOR

FIGURE M20-239 3

FAA APPROVED
AIRPLANE FLIGHT MANUAL SUPPLEMENT
FOR
MOONEY MODELS M20J OR M20K
WITH INCORPORATION OF
MOONEY SERVICE BULLETIN M20-239
BAGGAGE DOOR, INSIDE LATCH MODIFICATION

REG. NO. _____

SERIAL NO. _____

This Supplement must be attached to the applicable FAA Approved Airplane Flight Manual when the aircraft is modified per Mooney Service Bulletin M20-239. The information contained herein supersedes the basic manual only in those areas listed. For limitations, procedures and performance information not contained in this Supplement, consult the basic POH/AFM.

FAA APPROVED:



L.B. ANDRIESEN
Rotorcraft Directorate
Aircraft Certification Service
FEDERAL AVIATION ADMINISTRATION
Fort Worth, Tx. 76193-0100

Date SEP 30 1988

LOG OF REVISIONS

<p>MOONEY AIRCRAFT CORPORATION LOUIS SCHREINER FIELD KERRVILLE, TEXAS 78028</p> <p>LOG OF REVISIONS</p>				
Revision Number	Revision Pages	Description of Revisions	FAA Approved	Date

The revised portions of affected pages are indicated by vertical black lines in the margin.

The following POH/AFM's are affected for M20J and M20K aircraft that are to be modified per this Service Bulletin. The POH/AFM number (and Revision if applicable) is shown along with the pages of the various sections of the POH/AFM that a portion of will be made obsolete when SB M20-239 is incorporated into an aircraft that uses the POH/AFM:

M20J

POH/AFM NO.	SECTION II PAGE NO.	SECTION III PAGE NO.. . . .	SECTION VII PAGE NO.
1221 D	2-12	3-9	7-32
1223 F	2-12	3-9	7-35/7-36BLANK
1225 D	2-12	3-9	7-33/7-34BLANK
1227 C	2-12	3-10, 3-11	7-34
1229 A	2-12	3-10, 3-11	7-24
1231 A	2-15	3-14, 3-15	7-31
1233 A	2-13	3-17, 3-19	7-29
1233 B	2-12	3-14, 3-15	7-21

M20K

1224 F	2-12	3-17	7-26
1226 E	2-12	3-16	7-26
1228 D	2-12	3-17, 3-18	7-27
1230 B	2-12	3-16, 3-17	7-27
1232	2-16	3-18, 3-19	7-30
1234 C	2-13	3-21, 3-24	7-32
1236	2-13	3-24, 3-27	7-32
1236 A	2-12	3-20, 3-22	7-25

SECTION I - GENERAL

NO CHANGE

SECTION II - LIMITATIONS

New Placard required: 150080-834; Located above inside baggage door handle.

**AUXILIARY EXIT
DO NOT OPEN IN FLIGHT
TO OPEN**

1. PULL OFF COVER
2. PULL CABLE EXTRACTING LOCK PIN
3. ACTUATE HANDLE

TO CLOSE

1. STORE HANDLE
2. INSERT LOCK PIN
3. INSTALL COVER
4. CLOSE AND LATCH DOOR USING
OUTSIDE HANDLE
5. LOCK DOOR

SECTION III - EMERGENCY PROCEDURES

UNLATCHED DOORS IN FLIGHT

CABIN DOOR

NO CHANGE TO THESE WORDS FROM BASIC POH/AFM

BAGGAGE DOOR

If the baggage door is not properly closed, it may come unlatched in flight. This may occur during or after takeoff. The door will open to its full open position and then take an intermediate position depending upon speed and attitude of the aircraft. There will be considerable wind noise and any loose, light objects may exit the aircraft if in the vicinity of the open door. There is no way to shut and latch the door from the inside; fly the aircraft in normal manner. LAND AS SOON AS POSSIBLE and secure the baggage door.

Baggage Door Latching Mechanism VERIFY PROPERLY ENGAGED (inside mechanism) then shut from the outside.

EMERGENCY EXIT OF AIRCRAFT

CABIN DOOR

PULL latch handle AFT; OPEN door and exit aircraft.

BAGGAGE DOOR

Fold rear seat backs forward (if applicable), CLIMB OVER. PULL off plastic cover. PULL latch pin from hole in clip assembly. LIFT red handle UP. OPEN door and exit aircraft.

TO VERIFY RE-ENGAGEMENT OF BAGGAGE DOOR LATCH MECHANISM: OPEN outside handle fully. CLOSE inside red handle to engage pin into cam slide of latch mechanism. PLACE latch pin in hole of clip assembly to hold red handle down. REPLACE cover. CHECK and operate outside handle in normal manner.

SECTION IV THRU VI

NO CHANGE

SECTION VII - AIRPLANE AND SYSTEMS DESCRIPTION

EMERGENCY EXITS

CABIN DOOR

The cabin door is the primary emergency exit from the cabin. If a situation exists where a probable emergency landing will occur, the door should be unlatched to prevent jamming of the door during the emergency.

BAGGAGE DOOR

The baggage compartment access door can be used as a means of auxiliary exit. The door can be opened from the inside even though locked. To open, pull off the small ABS cover, PULL out the latch pin and lift UP red handle.

To verify re-engagement of latching mechanism: insert latching pin into hole of clip assembly to hold red handle down. Replace ABS cover. Operate outside handle in normal manner.

SECTION VIII THRU X

NO CHANGE