

THIS SERVICE BULLETIN IS FAA APPROVED FOR ENGINEERING DESIGN

Revision A is prepared to clarify wording of SB. No procedural changes were made.

Revision B is prepared to clarify inspection locations and required repetitive inspections per FAA.

Revision C is prepared to delete M20M, S/N 27-0273 from Models Affected list. Records show this S/N was completely through the production line prior to the automatic rivet machine discrepancies.

SUBJECT: MOONEY M20M, M20R, M20S, AIRFRAME INSPECTION

MODELS/S/N AFFECTED:

M20M - S/N: 27-0274 THRU 27-0282

M20R - S/N: 29-0189 THRU 29-0209

M20S - S/N: 30-0026 THRU 30-0042

TIME OF COMPLIANCE:

FIELD INSPECTION, (*Instruction Section I.*) - At next maintenance action, not to exceed 20 flight hours & every 100 flight hours thereafter. Limit 2 years from date of License.

INSPECTION & REPAIR, (*Instruction Section II.*) - 2 years from date of License.

INTRODUCTION:

Mooney Aircraft Corporation has determined that due to the possibility of improper operation of an automatic riveting machine, there are some components that require inspection. The inspection is to determine if improper riveting/assembly processes, which were incorporated into the production line operations in March, 1999, were used during the manufacture of these components.

FAA and MAC personnel have determined that some of the components may require repair or replacement within 2 years of the aircraft licensing.

To facilitate aircraft inspection and possible repair in accordance with MAC Rivet Installation Repair Drawing # 020021, aircraft will be scheduled into the Mooney Factory Service Center over the coming months. Inspection in accordance with this Service Bulletin shall be performed at the Mooney Factory Service Center or MAC Approved Field Service Center.

Once the aircraft have been repaired at the factory, in accordance with MAC Drawing # 020021, the repetitive 100 hour inspections shown under TIME OF COMPLIANCE will no longer be required.

INSTRUCTIONS:

SECTION I:

1. Secure aircraft in accordance with applicable sections of the MAC Service & Maintenance manual for the aircraft being inspected.
2. Remove Pilot & Co-pilot seats from seat tracks.
3. Remove lower LH & RH interior, kick panels to gain access for inspection # 5 below. The complete interior side panels below windows, LH & RH, may be removed if desired.
4. For inspection orientation, refer to Figure SB M20-273-1.0.
5. Inspect Wing leading edge Rib Assemblies, P/N's 210026-509 (LH)/-510 (RH), (Wing Sta. 24.50), from inside the cabin, for working, loose rivets or rivets seeping fuel per Figure SB M20-273-1.1.
6. Disconnect LH and RH main landing gear inboard, wheel door actuation mechanism to gain complete access to landing gear bay. Clean interior of landing gear wheel well of dirt and grease.
7. Inspect Wing Rib Assemblies, P/N's 210022-1 (LH)/-2 (RH), (Station 21.125), looking from inside LH & RH Main Landing Gear Wheel Wells for working or loose rivets per Figure SB M20-273-1.2.
8. Inspect Wing Rib Assemblies, T/E only, P/N's 210022-3 (LH)/-4 (RH), (Wing Station 59.25), looking from inside LH & RH Main Landing Gear Wheel Wells for working or loose rivets per Figure SB M20-273-1.3.

9. Inspect Main Spar Assembly Web Stiffeners, P/N's 210000-17 (LH)/-18, (RH), looking from inside LH & RH Main Landing Gear Wheel Wells for working or loose rivets and/or any rivets potentially seeping fuel per Figure SB M20-273-1.4.
10. If working, loose or leaking rivets are found, contact Mooney Customer Support immediately at (800) 331-3880 to schedule aircraft into Factory Service Center for repair.
11. Complete the enclosed Inspection Form with all requested information. Return this completed form to MAC Customer Support Department, Attn.: SB M20-273 Inspection Data, within 60 days of the date of this Service Bulletin.
12. Complete entry in Airframe Log Book stating compliance to MAC Service Bulletin M20-273. In addition, list the aircraft hourmeter time when next inspection is due per SB M20-273 TIME OF COMPLIANCE information. Refer to the following recommended logbook entry.

RECOMMENDED AIRCRAFT LOGBOOK ENTRY:

DATE _____ HOURMETER _____
Aircraft has been inspected this date in compliance with Mooney Aircraft Corporation Service Bulletin M20-273. Prior to completion of repairs in accordance with Mooney Aircraft Corporation Drawing # 020021 the next scheduled inspection will be on or before Hourmeter reading _____.
Signature _____

13. Once the aircraft has been repaired in accordance with MAC drawing #020021, field inspections in accordance with this SB, M20-273, are no longer required.

SECTION II:

1. Mooney Customer Support personnel will be contacting owners of the above applicable aircraft to determine the current flight hours accumulated in order to schedule the aircraft into the repair process.
2. The repair schedules will be coordinated at the convenience of aircraft owners in order to minimize downtime.

WARRANTY:

SECTION I:

Mooney Aircraft Corporation will allow a one time warranty credit of ten (10) man hours time to complete the initial inspection and log book entry described in SECTION I of this SB. Subsequent inspections (if required, and to be done in conjunction with 100 hour inspections) will allow warranty credit of six (6) man hours. Warranty credit will be honored ONLY when compliance with SB M20-273 is done through a Mooney Service Center.

SECTION II:

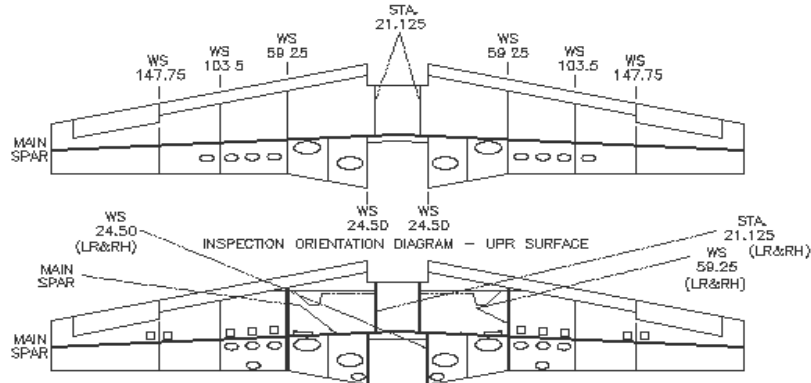
Mooney Aircraft Corporation will perform the necessary inspection and any required component repair or replacement at the Mooney Factory Service Center when schedules are established between owners and MAC and the aircraft arrives in agreement to these schedules.

REFERENCE DATA: N/A

PARTS LIST: N/A

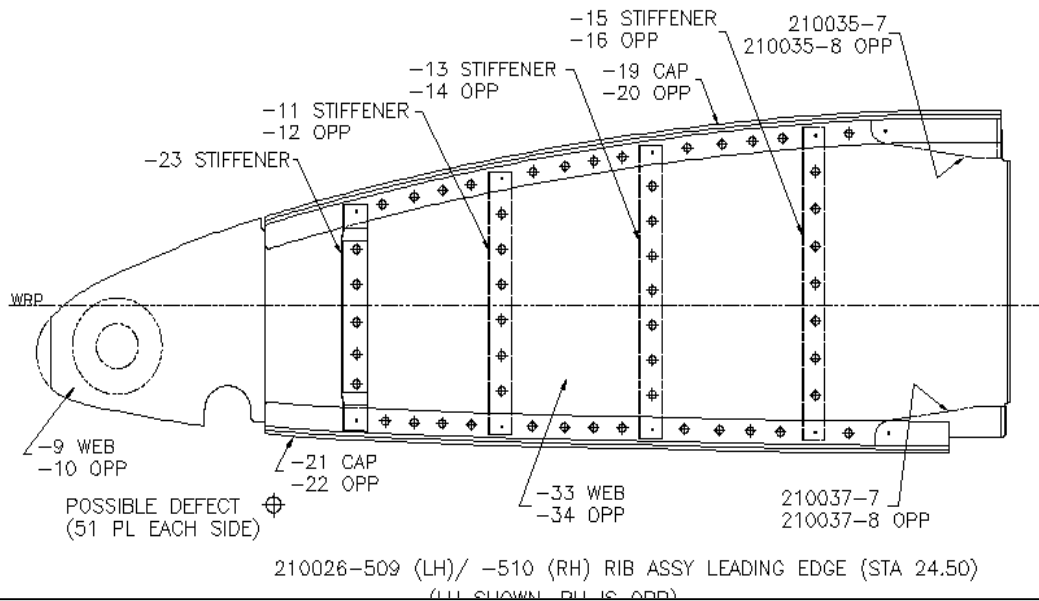
FIGURES/TABLES: Reference Figures SB M20-273-1.0, 1.1, 1.2, 1.3, & 1.4 on the following pages.

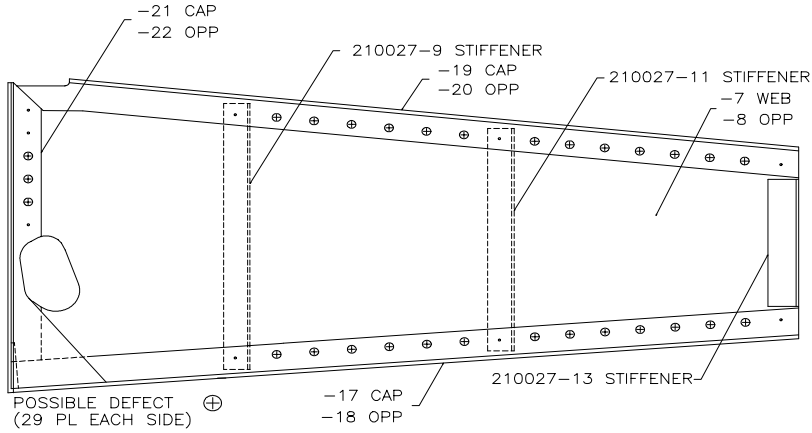
NOTE: □, ○, ⊕ ARE SYMBOLS THAT REPRESENT ACCESS PANELS IN THE WING. THESE DO NOT REQUIRE REMOVAL FOR THIS INSPECTION.



- INSPECTION ORIENTATION DIAGRAM - LWR SURFACE
- INSPECT STATION 21.125 AND STATION 29.25 RIB ASSYS. AND MAIN SPAR FROM INSIDE BOTH LH & RH LANDING GEAR WHEEL WELLS.
 - INSPECT STATION 24.50 RIB ASSY. FROM INSIDE CABIN.

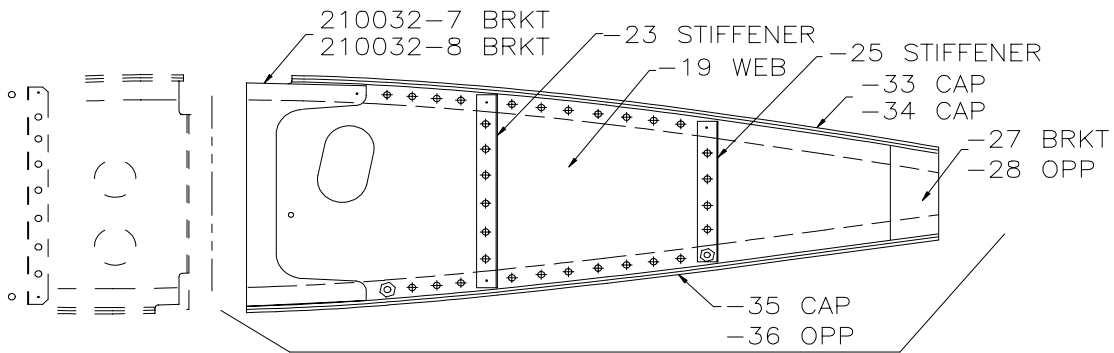
FIGURE SB M20-273-1.0





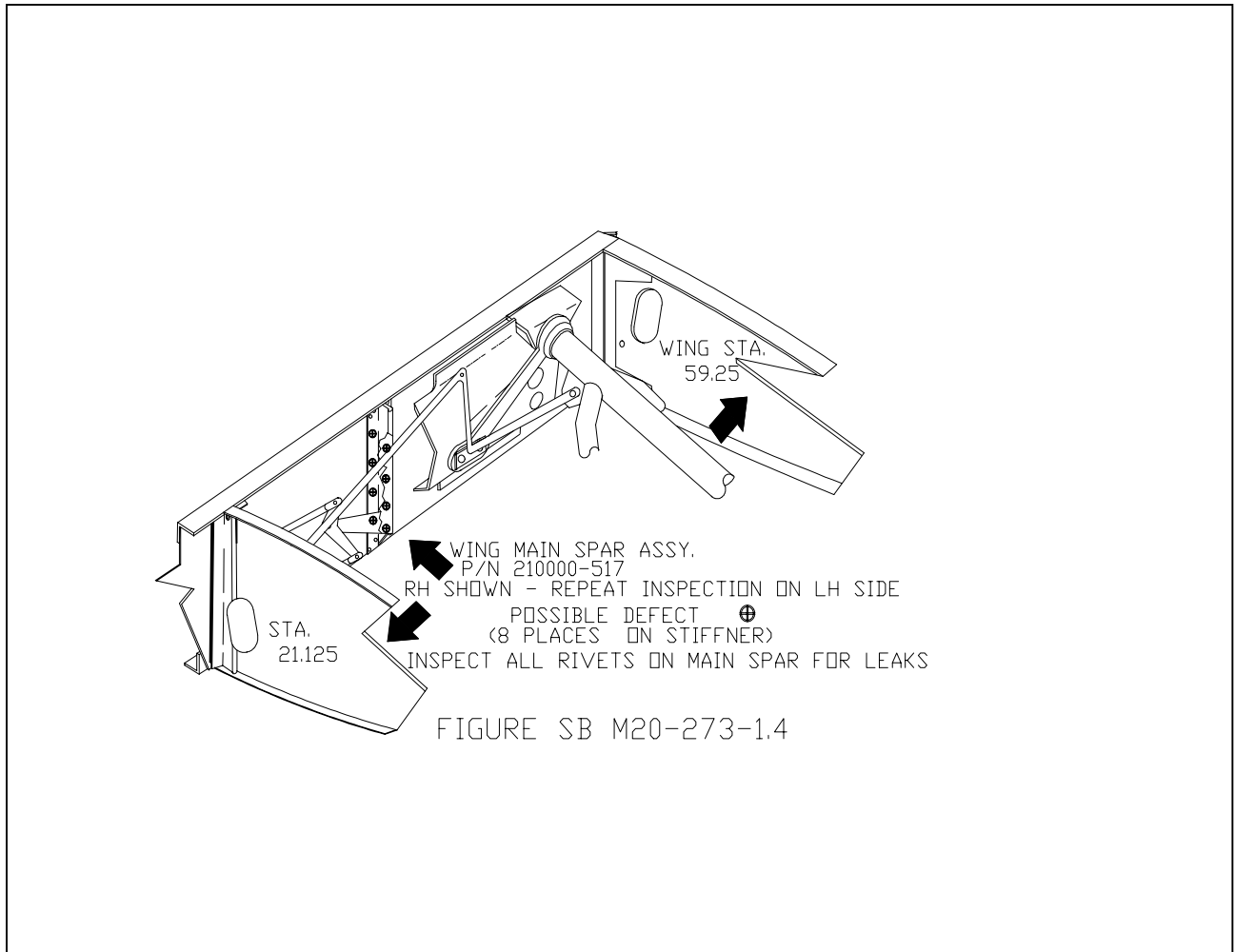
210022-1 (LH)/ -2 (RH) RIB ASSY (@ STA. 21.125)
 (PLANNING No. 210408-901 (LH)/-902 (RH) RIB ASSYS [REF])
 (LH SHOWN, RH IS OPP)

FIGURE SB M20-273-1.2



210029-3 (LH)/-4 (RH) RIB ASSY, T/E ONLY, [@ STA. 59.250]
 (LH SHOWN, RH IS OPP)

FIGURE SB M20-273-1.3



SEE INSPECTION REPORT FORM ON FOLLOWING PAGES:

SERVICE BULLETIN M20-273
ISSUE DATE: 15 FEBRUARY, 2000
Revision C: 1 September, 2000
PAGE 6 of 7

MOONEY AIRCRAFT CORPORATIONS M20-273 INSPECTION REPORT FORM

AIRCRAFT MODEL _____ AIRCRAFT S/N _____

HOURLY METER READING _____ AIRCRAFT TOTAL TIME _____

DATE _____ NAME OF INSPECTING SERVICE CENTER _____

IN THE SPACES PROVIDED DESCRIBE THE RESULTS FOUND ON EACH AREA REQUIRING
INSPECTIONS. DESCRIBE IN DETAIL ANY DISCREPANCY FOUND OR NOTE THAT
"NO DISCREPANCIES WERE FOUND".

210026-509 - L/H LEADING EDGE WING RIB ASSEMBLY (WING STA. 24.50)

210026-510 -R/H LEADING EDGE WING RIB ASSEMBLY (WING STA. 24.50)

210022-1 - L/H RIB ASSEMBLY (STA. 21.125)

210022-2 - R/H RIB ASSEMBLY (STA. 21.125)

210022-3 - L/H TRAILING EDGE WING RIB ASSEMBLY (STA. 59.25)

210022-4 - R/H TRAILING EDGE WING RIB ASSEMBLY (STA. 59.25)

210000-17 - L/H MAIN SPAR WEB ASSEMBLY STIFFENERS

210000-18 - R/H MAIN SPAR WEB ASSEMBLY STIFFENERS

RETURN COMPLETED INSPECTION FORM TO CUSTOMER SERVICES DEPARTMENT, ATTN.: SB M20-273 INSPECTION DATA.