

SUBJECT: Inspection of Fuel Tank Sealant Application

MODELS/ M20B, M20C, M20D, M20E, M20F, M20G & M22 — ALL SERIAL NUMBERS.

S/N AFFECTED: M20J: S/N24-0001 thru 24-1498; M20K: S/N25-0001 thru 25-0854.

M20J: S/N24-1499 & ON and M20K: S/N25-0855 & ON — ONLY IF FUEL TANK HAS BEEN RESEALED BY FIELD PERSONNEL.

TIME OF COMPLIANCE: Within next 50 flight hours or at next scheduled inspection.

INTRODUCTION: Reports have been received that fuel and water have been found trapped between ribs due to one or more rib drain holes being sealed over during tank sealing; particularly in tanks that have been resealed.

INSTRUCTIONS: General - Inspect to ensure all required rib holes are open to allow fuel (or any water) to move to the lowest area of the tank.

Refer to Figures M20-230-1 thru -7 for areas to check for specified holes to be open and **NOT** filled with sealant compound.

1. Position airplanes in an approximate level attitude (all axis) on its landing gear. Drain fuel per instructions in applicable Service and Maintenance Manual.
2. Carefully remove fuel tank access covers on top of wing as indicated below for a particular model (reference Figure M20-230-1).

NOTE

In lieu of access cover removal optional methods of inspection **are acceptable**. However, the method **MUST** be demonstrated to the local FAA Inspector that a positive determination can be made that all holes are open and the intent of this Service Bulletin has been complied with.

A. M20B, M20C, M20D, M20E and M20G Models:
Access Cover No. ① required, Fuel Transmitter ⑤ optional.

B. M20F and M20J Models:
Access Cover No. ① required, No. ② & ⑤ optional.

C. M20K Model:
Access Cover No. ① and ③ required, No. ② & ⑤ optional

D. M22 Model:
Access Cover No. ① and ③ required, No. ②, ④ & ⑤ optional.

3. Inspect each tank bay **outboard** of each rib station for trapped fuel (or any liquid) that has not drained through the passage holes at each rib station to the fuel tank sump drain area.
4. Inspect each rib station (refer to Figure M20-230-2 thru -7) to determine that all fuel passage holes are open to allow fuel to drain from outboard of rib stations to the fuel tank sump area.
5. There should be no fuel (or any liquid) trapped outboard of any rib station. If a positive determination cannot be made that fuel is not trapped and/or that all holes are open, the access covers marked "Optional" in paragraph 2, A thru D above, should be removed to complete the inspection.
6. If inspection determines all holes are **OPEN** in the appropriate ribs as shown in figures M20-230-2 thru -7 this portion of inspection is completed. Proceed to Step 8.
7. If inspection determines all holes are **NOT OPEN** in the appropriate ribs as shown in Figure M20-230-2 thru -7 proceed as follows:
 - A. Determine exact position of rib hole(s) that are sealed over.
 - B. Using pointed exacto knife clear hole of sealant; be careful not to cut sealant from rib flange.

C. If after clearing hole it appears that fuel can get under adjoining sealant carefully, carefully reseal area without covering hole. use PRI422B½ or B2 sealant.

D. Proceed to Step 8 .

8. Install all removed access covers per Service and Maintenance Manual and Figure M-20-230-8. Use PR1403-G-B2 or equivalent sealant as specified in S & M Manual, noting cure time. (PR1422B-1/2 or B-2 may be used if necessary)

"CAUTION"

Use of AN507 screws longer than 7/16 inch will puncture acorn anchor nut in access plate.

REFERENCE DATA: N/A

PARTS LIST: N/A

FIGURES/TABLES: See Figure M20-230-1 thru M20-230-7.

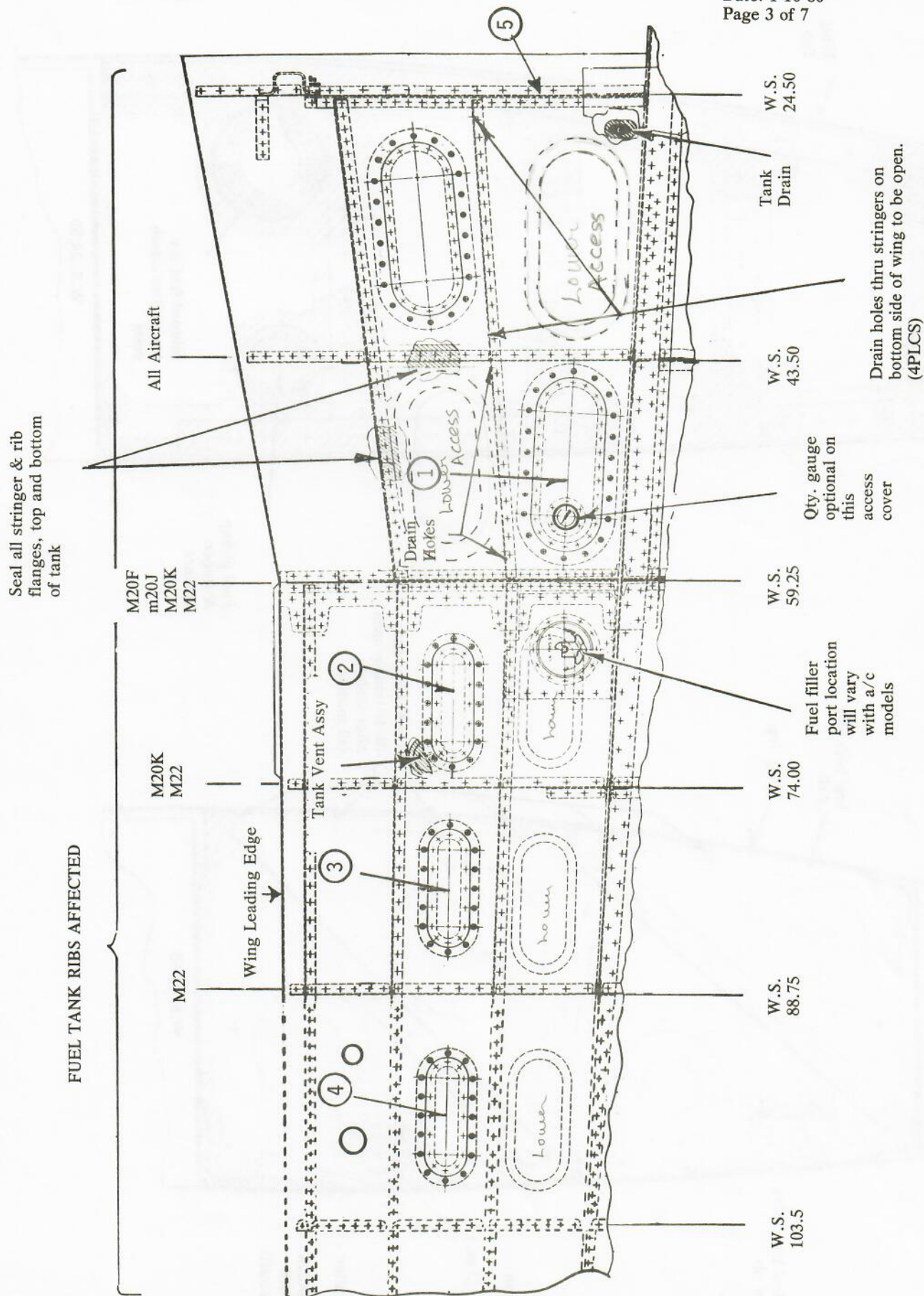


FIGURE M20-230-1
(VIEW LOOKING DOWN FROM TOP OF WING)

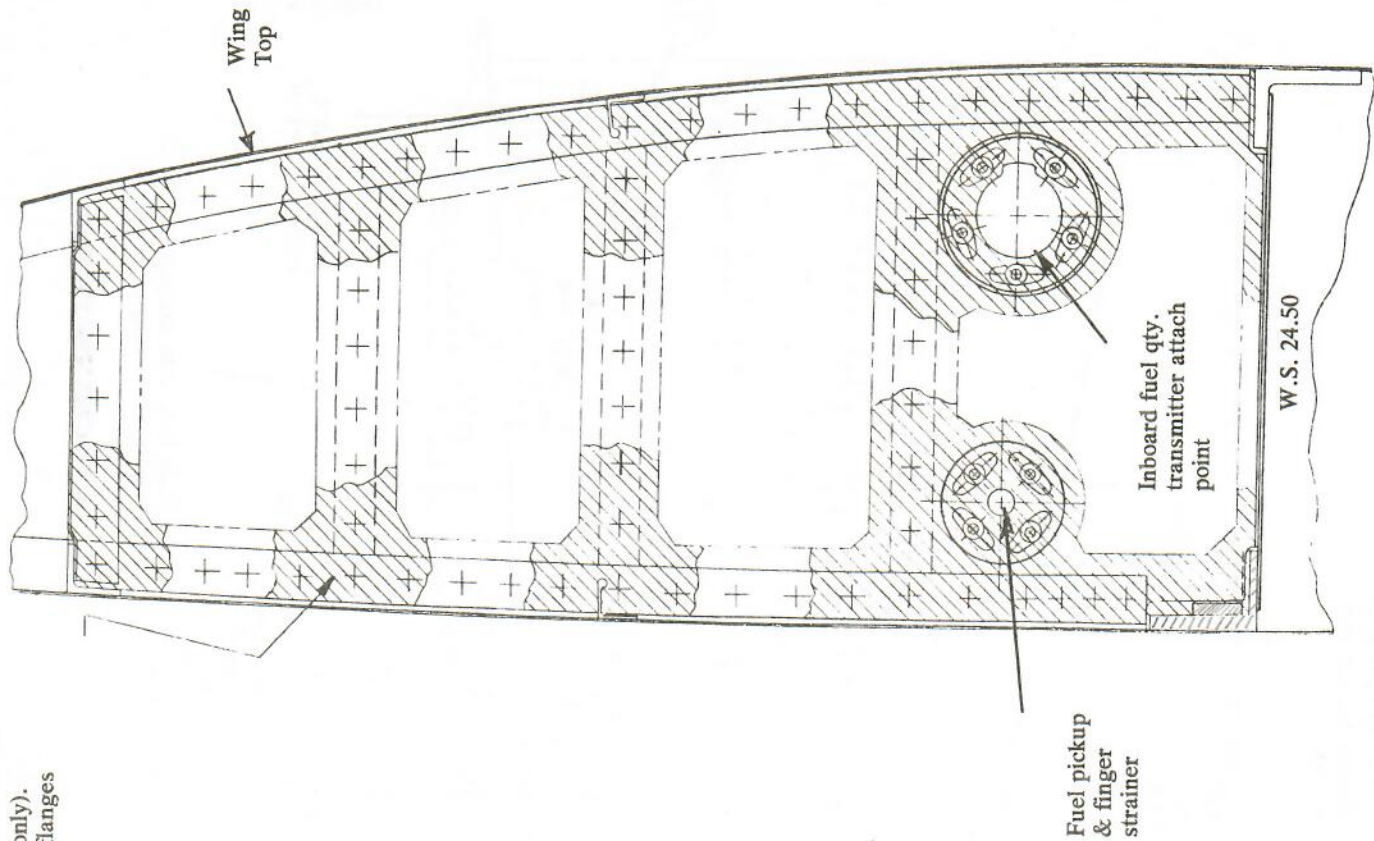


FIGURE M20-230-2

Seal rib as shown (this side only).
 Seal all rivets, nut plates & flanges
 (ALL MODELS).

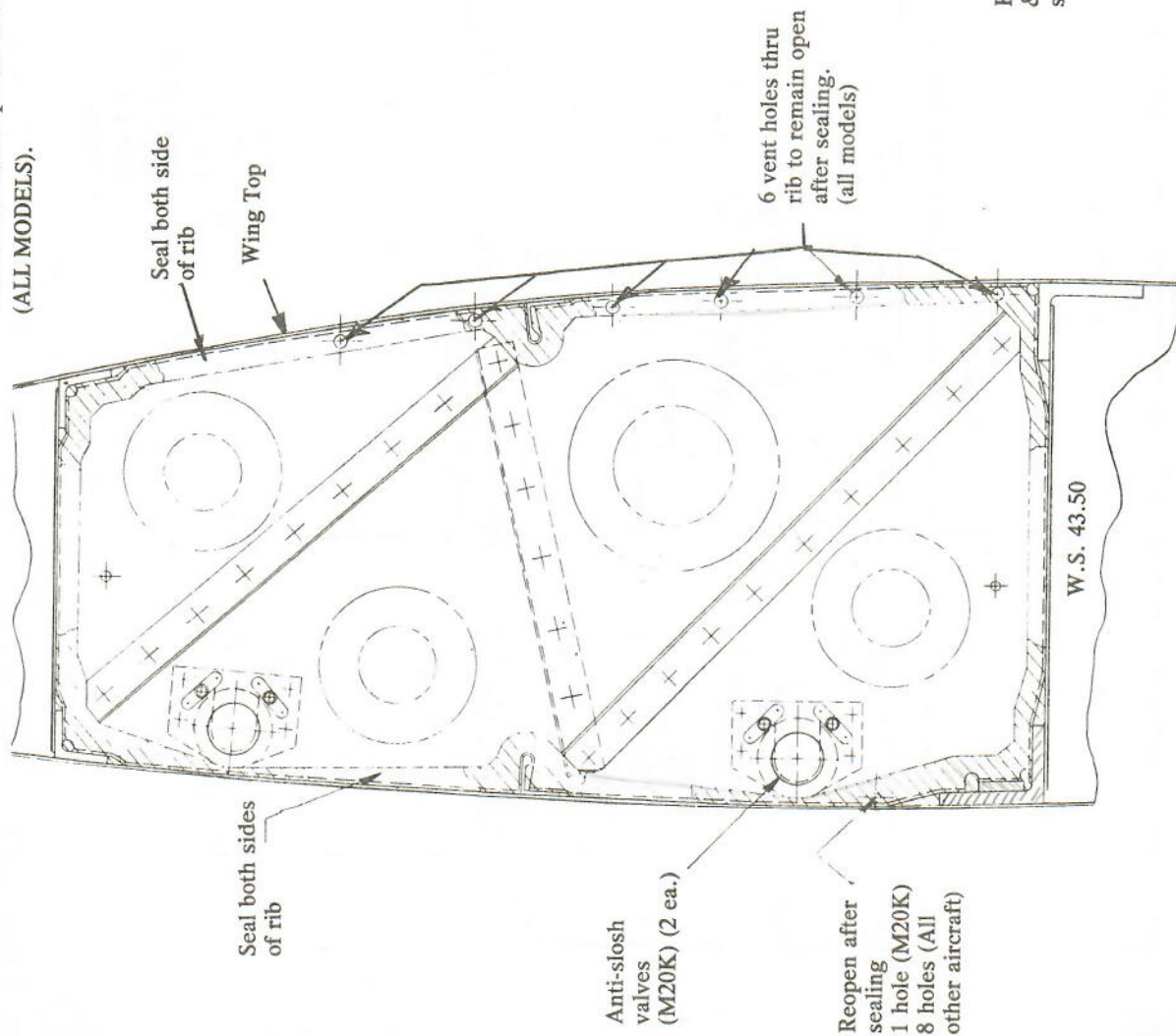


FIGURE M20-230-3

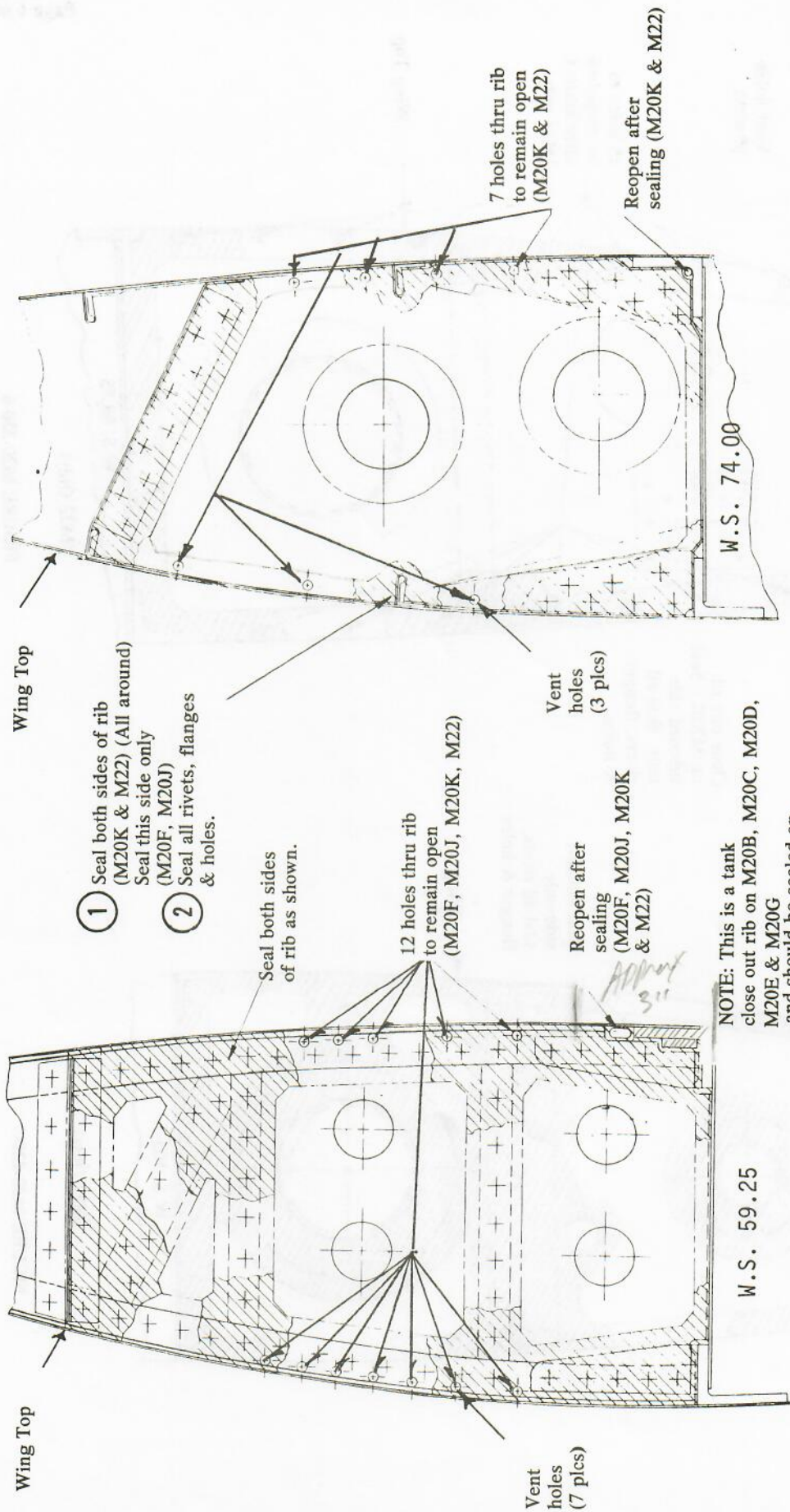


FIGURE M20-230-5

FIGURE M20-230-4

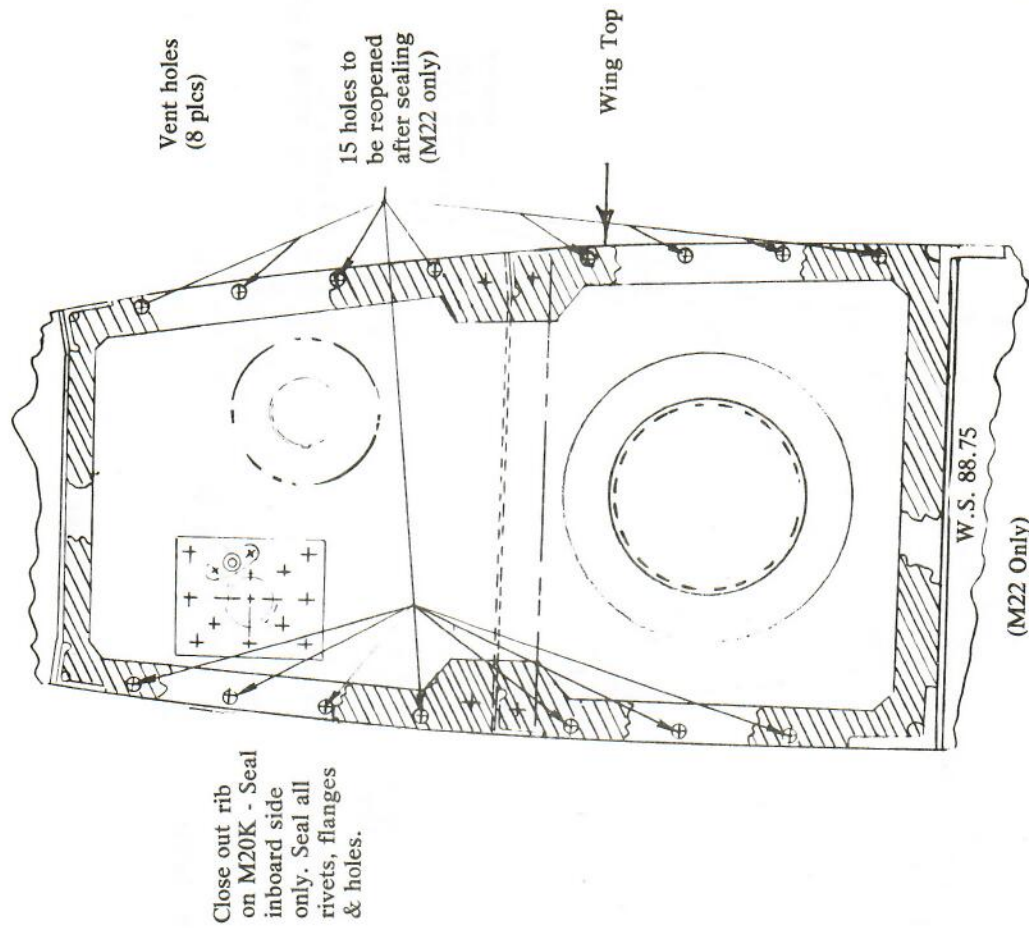


FIGURE M20-230-6

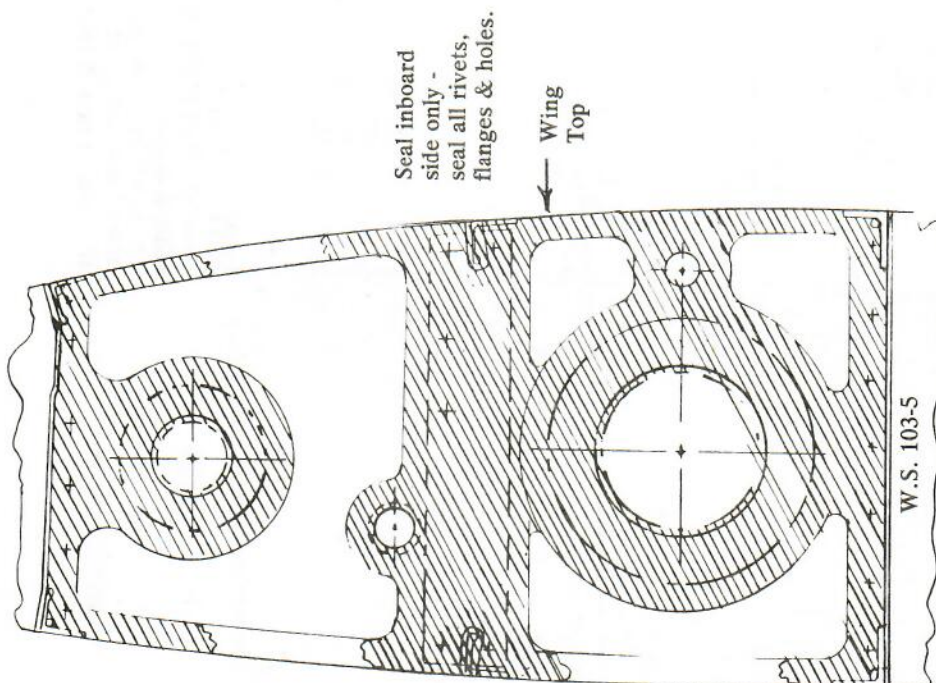


FIGURE M20-230-7

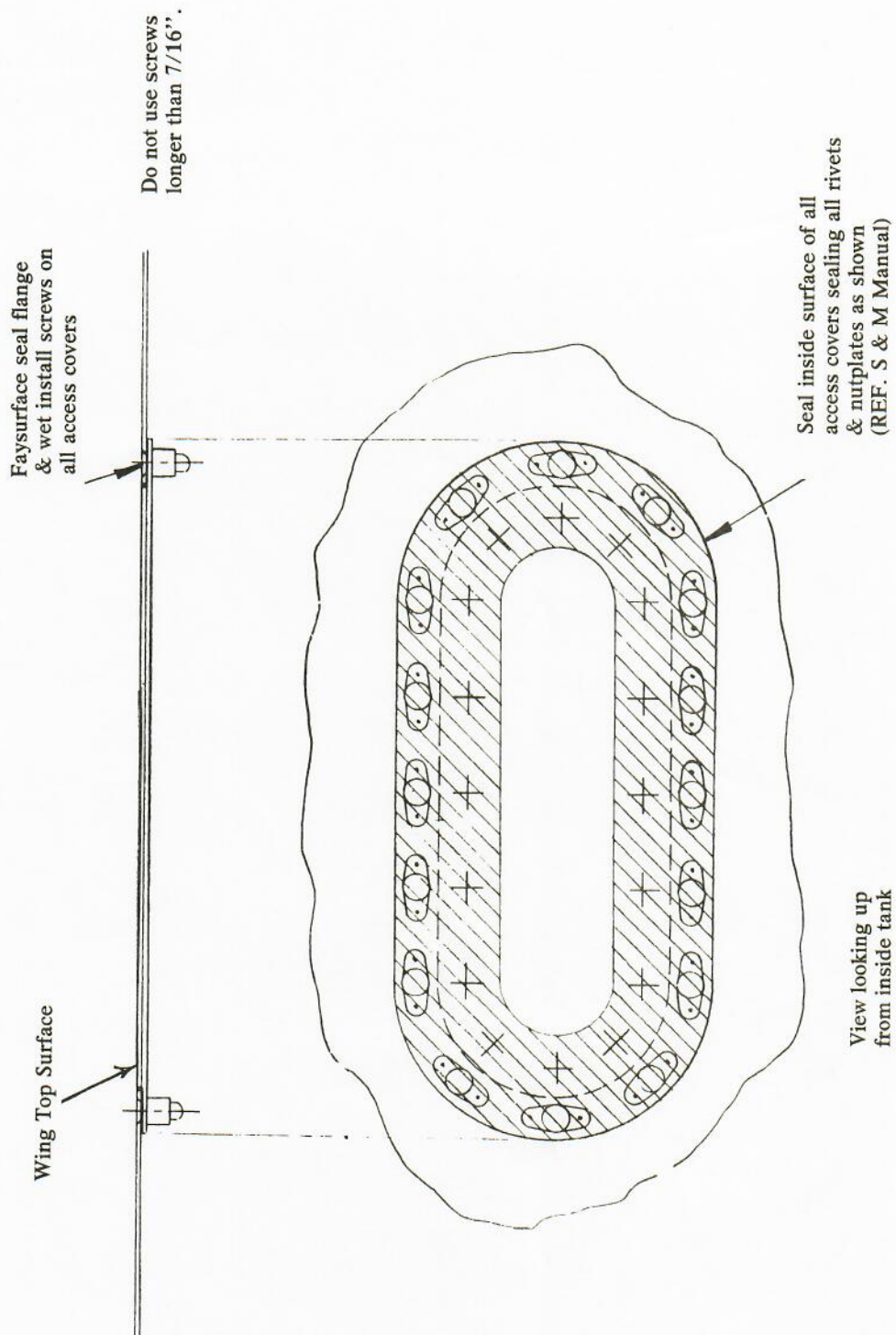


FIGURE M20-230-8

Airworthiness Directive 85-24-03 Summary

Subject:	85-24-03 - Water entrapment in fuel tanks		
Manufacturer:	Mooney	Category:	Airframe
Effective Date:	01/06/1986	Recurring:	No
Supersedes:	N/A	Superseded By:	N/A

For complete information on this AD, please see:
AD 85-24-03 (FAA Copy)

Model Applicability:

Applies to Models M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, and M22 (all Serial Numbers (S/N)) airplanes certificated in any category.

Applicable Manufacturers Service Information:

Mooney S/B M20-230, Mooney S/B M20-229

85-24-03 MOONEY AIRCRAFT CORPORATION: Amendment 39-5173. Applies to Models M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, and M22 (all Serial Numbers (S/N)) airplanes certificated in any category.

Compliance: Within 100 hours time-in-service after the effective date of this AD or at the next annual inspection, whichever occurs first, unless already accomplished.

To preclude fuel contamination and water entrapment in the fuel tanks accomplish the following:

(a) For Models M20B, M20C, M20D, M20E, M20F, M20G (all S/N), M20J (S/N 24-0001 through 24-1498), M20K (S/N 25-0001 through 25-0854) and M22 (all S/N) airplanes, visually inspect all fuel tank bays and rib stations in accordance with the instructions contained in Mooney S/B M20-230, dated April 10, 1985. Repair all discrepancies found prior to further flight.

(b) For Models M20C (S/N 2623 through 20-1258), M20D (S/N 201 through 260), M20E, M20F, M20G, M20J, M20K and M22 (all S/N) airplanes, visually inspect the fuel tank filler cap assemblies in accordance with the instructions contained in Mooney S/B M20-229, dated April 10, 1985. Repair all discrepancies found prior to further flight.

(c) For Models M20J (S/N 24-1499 and on) and M20K (S/N 20-0855 and on) airplanes that have had any fuel tank resealed after initial installation at the factory, visually inspect all fuel tank bays and rib stations in accordance with the instructions contained in Mooney S/B M20-230 dated April 10, 1985. Repair all discrepancies found prior to further flight.

(d) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(e) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Airplane Certification Branch, ASW-150, Federal Aviation Administration, Southwest Region, Post Office Box 1689, Fort Worth, Texas 76101.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Mooney Aircraft Corporation, Post Office Box 72, Kerrville, Texas 78028-0072 or FAA, Office of Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on January 6, 1986.