



SUBJECT: Exhaust System Replacement

MODELS AFFECTED: M20A, S/N 1201-1700  
M20B, S/N 1701-1851, 1853-1939  
M20C, S/N 1852, 1940-3466, 670001, 670002,  
670005-670020, 670022-670027,  
670029-670031, 670042, 670051  
M20D, S/N 1, 101-260  
M20E, S/N 101-1308, 670001  
M20F, S/N 670001-670245, 670247-670257  
670259-670342

TIME OF COMPLIANCE: At Owner's Discretion

INTRODUCTION: For replacement exhaust systems on the above listed aircraft, Mooney exhaust systems are available as spare parts. When replacing systems comply with Service Bulletin No. M20-144.

INSTRUCTIONS: M20A, M20B SB Kit #1

1. Remove both side and bottom cowling.
2. Disconnect all heating ducts at the muffler.
3. Remove the exhaust system and the tail pipe supports.
4. Remove landing light and light adjustment screws.
5. Remove the engine crankcase quick drain from the right side of the engine and reinstall it on the left side of the case.
6. Rework the cabin heat valve as shown in Fig. 3.
7. Rework the landing light bracket as shown in Fig. 4.
8. Comply with Service Bulletin M20-144.
9. Install the M20-152-601 exhaust system with hardware furnished.
10. Secure the tail pipe to the hanger.
11. Install ducts to muffler.
12. Install all cowling previously removed.

INSTRUCTIONS: M20C, S/N 1852, 1940-3466; M20D, S/N 1, 101-260, SB Kit #2

1. Remove both side and bottom cowling.
2. Disconnect all heating ducts at the muffler.
3. Remove exhaust system and tail pipe hanger.
4. Comply with Service Bulletin M20-144
5. Install the M20-152-601 exhaust system with hardware furnished.
6. Secure the tail pipe to the hanger.
7. Install the ducts to the muffler.
8. Rework the right hand cowl flap per Figure 1.
9. Install all cowling previously removed.

INSTRUCTIONS: M20C, S/N 670001, 670002, 670005-670020, 670022-670027  
670029-670031, SB Kit #3

1. Remove both side and bottom cowling.
2. Disconnect all heating ducts at the muffler.
3. Remove exhaust system and tail pipe hanger.
4. Comply with Service Bulletin No. M20-144
5. Install 630059 Basic exhaust system with hardware furnished.
6. Secure tail pipe to hanger.
7. Install ducts to muffler.
8. Install all cowling previously removed.



INSTRUCTIONS: M20E, S/N 101-1308, SB Kit #4

1. Remove both side and bottom cowling.
2. Disconnect all heating ducts at the muffler.
3. Remove exhaust system and tail pipe hanger.
4. Comply with Service Bulletin No. M20-144.
5. Install the M20-152-603 exhaust system with hardware furnished.
6. Secure the tail pipe to the hanger.
7. Install the ducts to the muffler.
8. Replace the right hand cowl flap with 650015-507.
9. Replace the oil cooler air deflector bottom inboard spacer part no. 914022-5 with 914022-27 furnished.
10. Remove the 620014 oil line shield located on the bottom . LH outboard cowl rail. Replace with 620014 furnished. Installed on the outboard side of the cowl rail attaching with AN426AD4 rivets. Secure the 620014 shield to the bottom side of the AN743-12 clip with the existing hardware.
11. Install throttle bracket P/N 660123 furnished per Figure No. 2.
12. Install all cowling previously removed.

INSTRUCTIONS: M20E, S/N 670001 only, M20F, S/N 670001-670245, 670247-670257, 670259-670342; SB Kit #5

1. Remove both side and bottom cowling.
2. Disconnect all heating ducts from the muffler.
3. Remove the exhaust system and the tail pipe hanger.
4. Comply with Service Bulletin M20-144.
5. Install 630044-501 exhaust system with the hardware furnished.
6. Secure the tail pipe to the hanger.
7. Install heating ducts to the muffler.

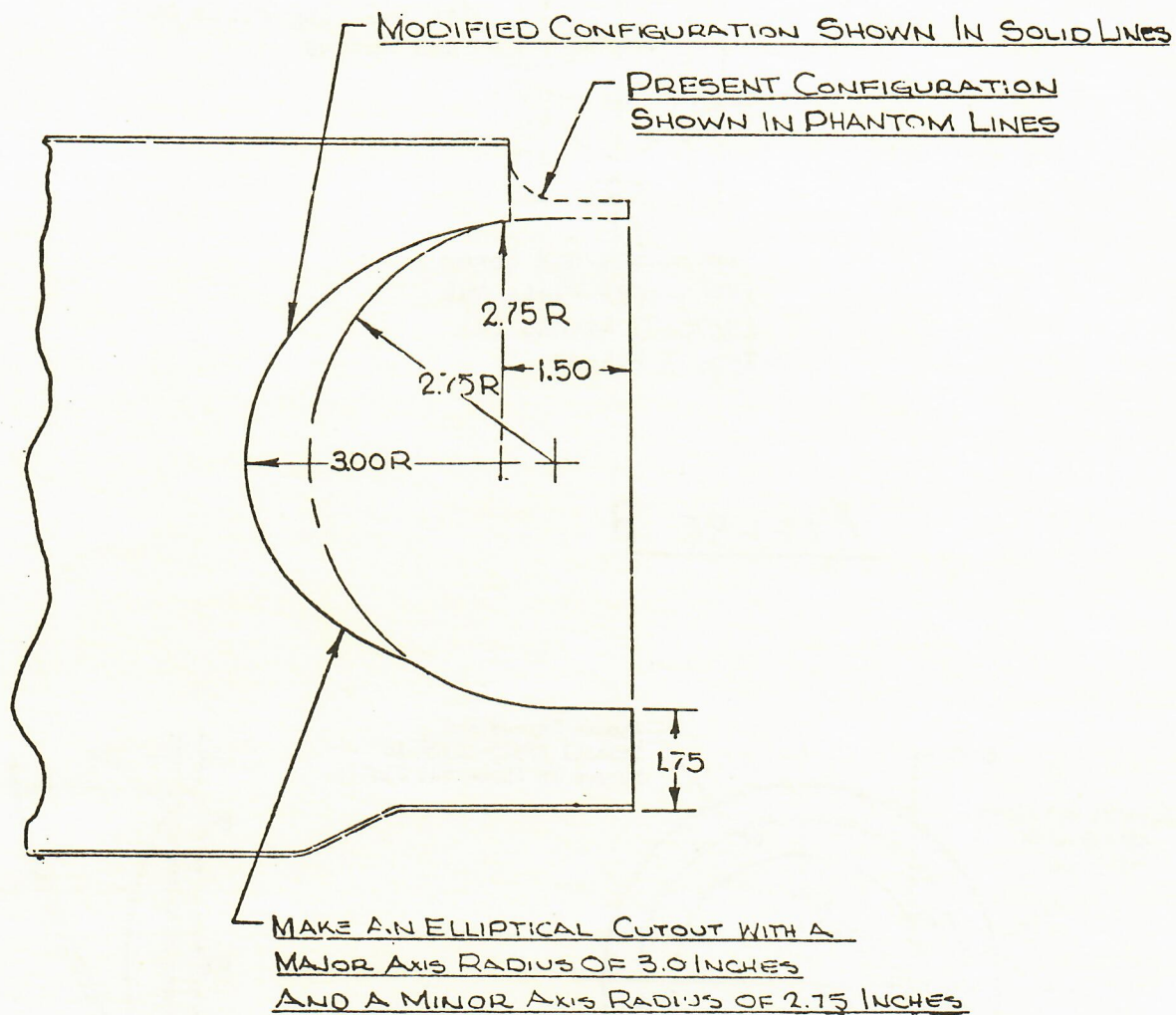
8. Replace the right hand cowl flap with 650015-507 furnished.
9. Replace the oil cooler air deflector bottom inboard spacer part no. 914022-5 with 914022-27 furnished.
10. Remove the 620014 oil line shield located on the bottom L.H. outboard cowl rail. Replace with 620014 furnished, install on the outboard side of the cowl rail attaching with AN426AD4 rivets. Secure the 620014 shield to the bottom side of the AN743-12 clip with the existing hardware.
11. Install the throttle bracket part no. 660123 furnished per Figure #2.
12. Replace all cowlings previously removed.

SERVICE BULLETIN KIT NO. M20-152:

| ITEM                      | Number Required |    |    |    |    |
|---------------------------|-----------------|----|----|----|----|
|                           | #1              | #2 | #3 | #4 | #5 |
| M20-152-603               |                 |    |    | 1  |    |
| 630044-501                |                 |    |    |    | 1  |
| M20-152-601               | 1               |    |    |    |    |
| 630059-Basic              |                 |    | 1  |    |    |
| 650015-507                |                 |    |    | 1  |    |
| 660123                    |                 |    |    | 1  | 1  |
| 620014                    |                 |    |    | 1  | 1  |
| 914022-27                 |                 |    |    | 1  | 1  |
| S.B. Kit 20-144           | 1               | 1  | 1  | 1  | 1  |
| AN742D6 Clamp             |                 |    |    | 2  | 2  |
| AN380-2-3 Cotter Pin      |                 |    |    | 2  | 2  |
| S.L. Kit M20-86 Items 1-4 | 1               |    |    |    |    |
| AN3-3 Bolt                |                 |    |    | 2  | 2  |
| AN960-10 Washer           |                 |    |    | 4  | 4  |
| AN310-3 Nut               |                 |    |    | 2  | 2  |

This kit may be purchased from your local Mooney distributor or dealer. Direct factory orders will not be accepted.





RIGHT HAND COWL FLAP LOOKING DOWN

FIGURE 1

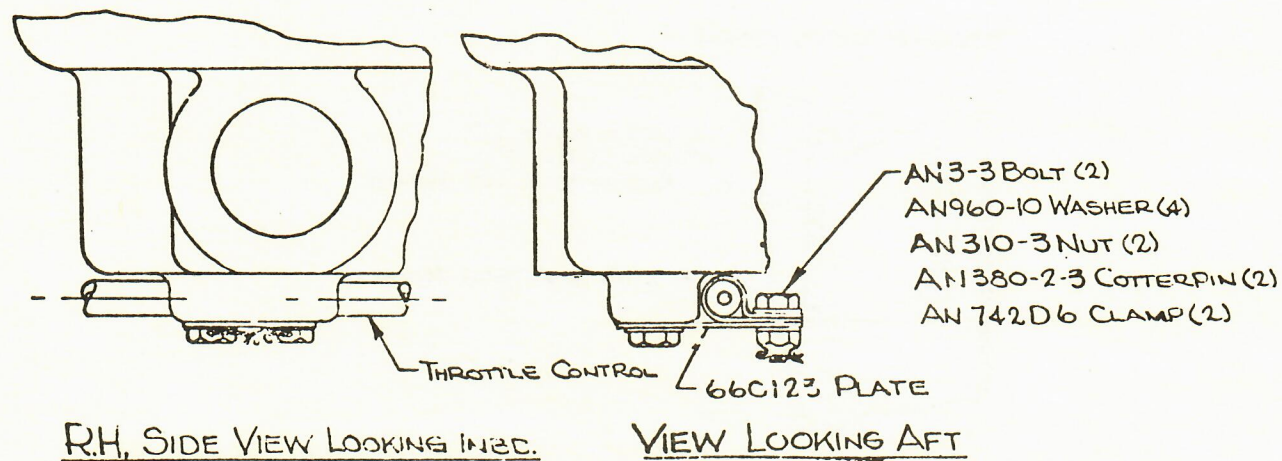


FIGURE 2

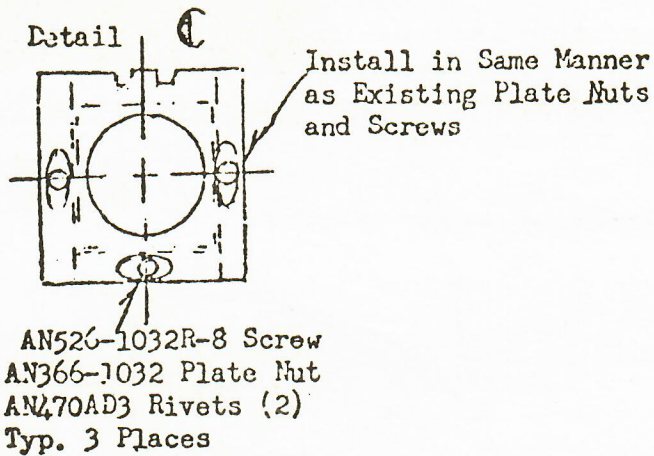
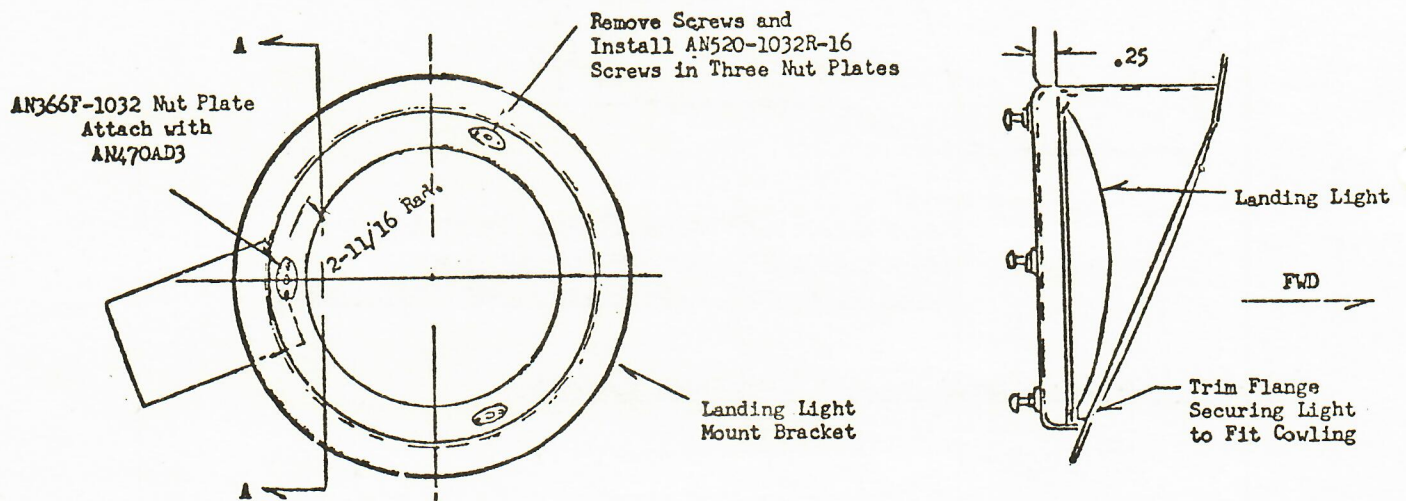
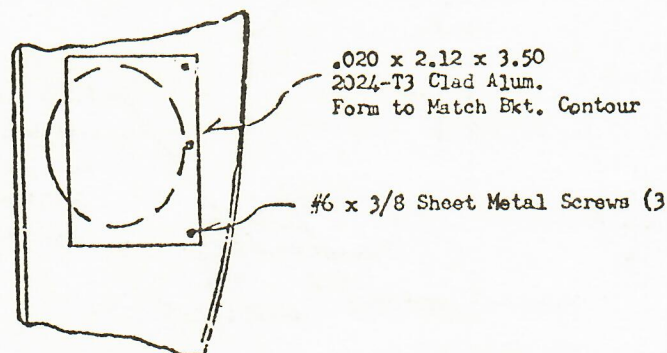


FIGURE 3



VIEW SHOWN LOOKING FORWARD



VIEW A-A

FIGURE 4