

SUBJECT: MOONEY M20M INDUCTION AIR FILTER INSPECTION

MODEL/S/N AFFECTED: M20M, S/N 27-0001 THRU 27-TBA

TIME OF COMPLIANCE: WITHIN NEXT 10 HOURS OF OPERATION

INTRODUCTION:

THERE HAVE BEEN REPORTS THAT THE INDUCTION AIR FILTER IS BEING MISPLACED INSIDE THE FILTER CAN DURING MAINTENANCE ACTIVITY. THIS IMPROPER LOCATION CAN IMPEDE INDUCTION AIR FLOW REQUIRED BY THE ENGINE AT HIGH POWER SETTINGS AND POSSIBLY NOT ALLOW FULL OPERATING POWER OF THE ENGINE. THIS SERVICE INSTRUCTION IS FOR INSPECTION OF THE FILTER ELEMENT POSITION INSIDE FILTER CAN ASSEMBLY AND TO PROVIDE A RECOMMENDED METHOD OF ASSURING FILTER ELEMENT IS CORRECTLY POSITIONED.

INSTRUCTIONS:

1. Remove cowling per M20M Service and Maintenance manual, Section 71-10-00.
2. Access to induction air filter can assembly (3) (Reference Figure SI M20-98-1 on Page 2 of 2) is from front of engine. The alternate air duct (5) is on right side of filter can assembly.
3. Loosen clamp (alternate air duct side) and remove alternate air duct hose (5) from flange of filter can end assembly (2).
4. Inspect through end assembly (2) duct for correct positioning of filter element (1). However, even if filter element (1) is aligned with air passage duct on alternate air end assembly (2), it is necessary to inspect the other end (turbo-charger (4) side) of filter can assembly (3) and ensure filter element (1) is also aligned correctly on that side.
5. It is recommended that the entire induction air housing and filter can assembly be removed from aircraft for inspection and any re-positioning of filter element (1) be done on work bench, NOT ON AIRCRAFT.
6. Remove safety wire from all three spring latches (6) connecting filter can assembly (3) and alternate air end assembly (2). Release spring latches (6) and carefully remove end assembly (2) from filter can assembly (3).
7. Filter element (1) is now loose and can be positioned correctly inside filter can assembly (3). Inspect filter element (1) and replace if necessary. Inspection is normally done at 50 hours of operation and filter element replaced each 500 hours of operation.
8. There is a raised circular portion on filter can sub-assembly end (turbo-charger end) and on alternate air end assembly (2). The filter element (1) is to be positioned on the inside of this raised portion of each end assembly. The rubber seal on filter element should fit flat against end assembly plates and create a slight amount of pressure when securing latches (6) on filter can assembly (3) to end assembly (2).
9. Make sure latches (6) are open when placing end assembly (2) on filter can assembly (3) while positioning filter element. Holding filter can assembly (3) vertically (alternate air end UP) is recommended while positioning filter element (1).
10. Inspect position of filter element (1) prior to safety wiring each latch (6).
11. Apply decal, P/N 150080-4097 (7) on induction housing as shown in Figure SI M20-98-1 if not installed previously.
12. When assured of proper position of filter element (1), install induction air assembly on aircraft. Secure end ducts to proper rubber tubes. Secure all clamps on induction air assembly and tubes.
13. Inspect area around alternate air door for foreign objects and entire engine area for component security, obvious damage or other improper situation.
14. Re-install cowling per M20M S & M manual, Section 71-11-00.
15. Enter log book compliance for this Service Instruction and return aircraft to service.

WARRANTY: Mooney Aircraft Corporation does not warranty the effort to accomplish this SI.

REFERENCE DATA: SEE MAC SPECIAL LETTER 93-1 FOR SLOTTED RETROFIT

PARTS LIST: Kit Part Number, SI M20-98-1 (DECAL may already be installed)

ITEM	P/N	DESCRIPTION	QTY
1	150080-4097	DECAL	1

SERVICE INSTRUCTION M20-98
DATE MARCH 1, 1993

PAGE 2 OF 2

FIGURES/TABLES: SEE FIGURE SI M20-98-1 BELOW

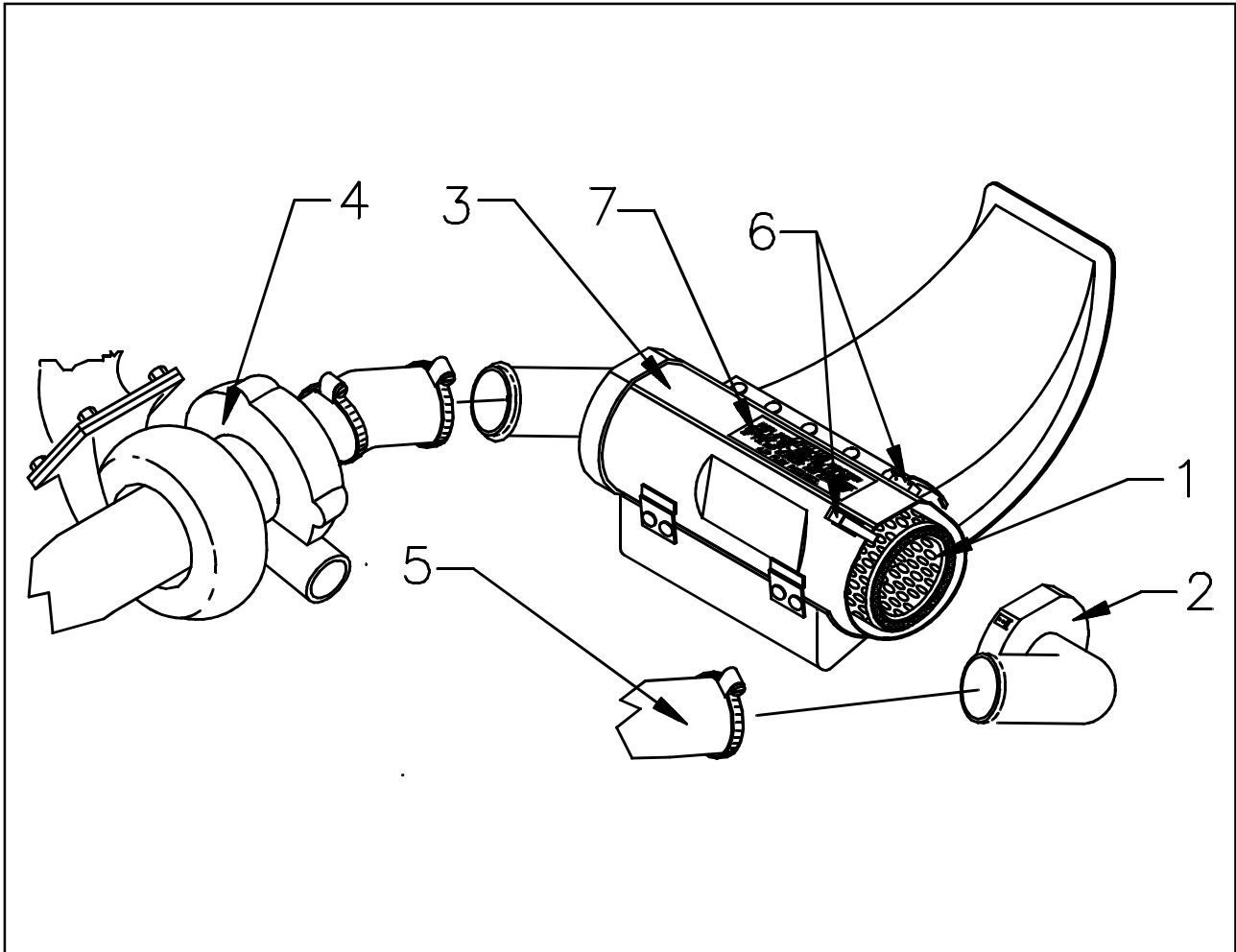


FIGURE SI M20-98-1

PLACARD - 150080-4097

CAUTION
WHEN INSTALLING NEW INDUCTION AIR FILTER ELEMENT, POSITION FILTER ELEMENT SO INSIDE CIRCUMFERENCE OF FILTER ELEMENT AND AIR FLOW PASSAGES IN FILTER CAN ASSEMBLY ARE ALIGNED WITH NO OVERLAPPING OF FILTER ELEMENT AND FILTER CAN AIR FLOW PASSAGES.