

**TO:** Distributors, Dealers, Service Centers  
**FROM:** Customer Service  
**SUBJECT:** Maintenance and Inspection of Carburetor Heat Box

**MODELS AFFECTED:** M20 SN 1002-1200  
M20A SN 1201-1700  
M20B SN 1701-1851, 1853-1939  
M20C SN 1852, 1940 and on  
M20D SN 1, 101 and on

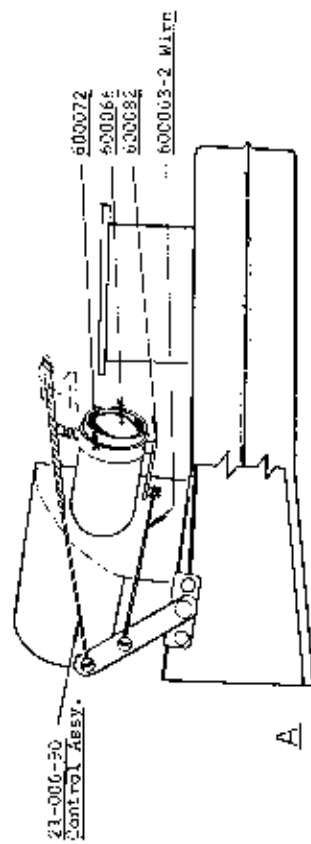
**TIME OF COMPLIANCE:** At each annual or 100 hour inspection whichever comes first.

**INTRODUCTION:** In order to insure that the carburetor heat portion of the induction air box functions properly, it is necessary that it be inspected and the necessary maintenance be accomplished during the annual or 100 hour inspection. As an aid to performing the inspection and maintenance, follow the steps listed below.

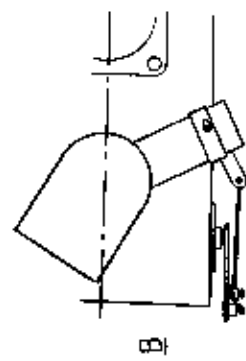
- INSTRUCTIONS:**
1. Remove side cowls and carburetor air screen.
  2. Loosen the AN 742-20 clamp and remove the 600067 hose from the carburetor air box.
  3. Inspect the carburetor air control assembly.
  4. Inspect butterfly valve and shaft for signs of wear and binding. Remove the AN 515-6-4 screw from the butterfly valve and shaft (View E-E). Apply Loctite sealant to the threads and reinstall.
  5. If the wire connecting the 600082 shaft to the 600071 shaft is bent, this is a good sign that the butterfly valve is jamming.
  6. Inspect the 600071 shaft assembly and the 600061 valve assembly for security and wear. Remove the four AN 515-8R4 screws from the 600061 door (View D-D) and apply Loctite sealant, type CV "nut lock," to the threads and reinstall.
  7. When the carburetor heat is off, the butterfly valve is open to dump hot air overboard. When the carburetor heat is on, the butterfly valve is closed, causing the heated air to flow into the carburetor.
  8. If any sign of wear, cracks, jamming, or out of rig is found on the carburetor air box, remove and repair as needed.
  9. Review Service Instruction No. M20-18 dated November 6, 1963.
  10. Review Service Bulletin M20-114 dated January 7, 1964.
  11. Review Service Bulletin M20-64 dated March 10, 1960, Inspection and Replacement of Carburetor Air Box Valve, Models affected M20 SN 1002-1151.
  12. Reinstall hose, clamp, carburetor air screen and side cowls.
  13. The necessary parts for the repair of the carburetor air box may be obtained from your Mooney distributor.

**MATERIALS:** Loctite Sealant, Type CV, Nutlock  
American Sealants Co.  
135 North Mountain Road  
Hartford 11, Connecticut

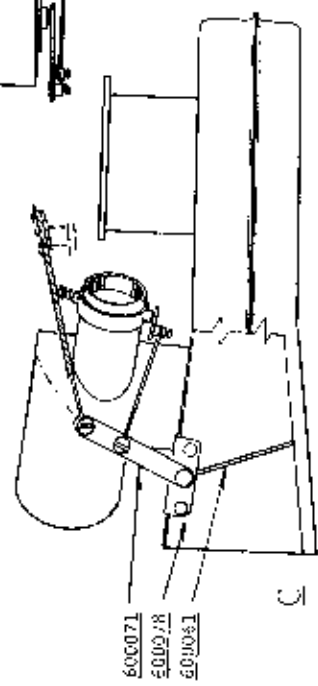
CARR HEAT OFF DUMP VALVE OPEN



A

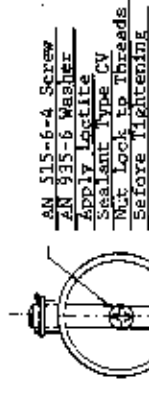


B



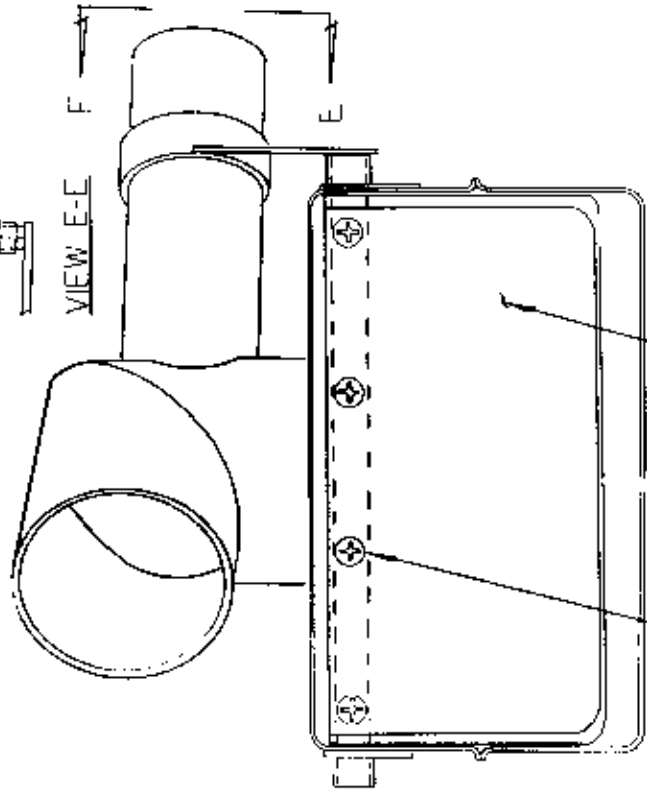
C

CARR HEAT ON DUMP VALVE CLOSED



- AN 515-6-4 Screw
- AN 935-6 Washer
- Apply Loctite
- Sealant Type CV
- Mt Lock to Threads
- Before Tightening

VIEW E-E



600061

- AN 515-6-4 Screw
- AN 935-6 Washer
- Apply Loctite Sealant Type CV
- Mt Lock to Threads Before
- Tightening (Typical Places)

VIEW D-D