

SERVICE LETTER 20-64

This Service Letter reidentified as
Service Bulletin M 20-64
per Service Instruction M20-15.

(This Service Letter is FAA approved)

DATE: March 10, 1960
SUBJECT: Carburetor Air Box - Inspection and Rework
MODELS AFFECTED: Noted in Each Part
TIME OF COMPLIANCE: Noted in Introduction to Each Part

PART I

Inspection and replacement of carburetor air box valve. Models affected - M-20 Serial Nos. 1002-1151.

INTRODUCTION

A few cases have been reported in which the carburetor air box valve assembly P/N 6175 has failed in the group of airplanes listed above. This failure can cause a power loss if the valve is drawn over the carburetor inlet. Airplanes, after Serial No. 1151, were equipped with an improved valve, P/N 6175 made of heavier gauge material, which has given good service. It is necessary that an inspection be made and that the following rework be accomplished if the valve is defective. If the valve is not defective, it is recommended that the rework be accomplished when convenient to eliminate the possibility of a future failure. Parts are available at no charge. Order kit S. L. 20-64-1 from:

Spare Parts Department
Mooney Aircraft, Inc.
P. O. Box 72
Kerrville, Texas

Please send airplane registration number with order.

PARTS LIST

Kit S. L. 20-64-1

(1) Air Box Valve Assembly P/N 6175 (1)

INSPECTION INSTRUCTIONS

(1) Remove Carburetor Air Filter P/N 6382 and inspect Valve P/N 6175 for cracks as shown in Figure 1.

REWORK INSTRUCTIONS

(1) Replace old valve with new P/N 6175 valve.

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PART 2

Inspection and replacement of Carburetor Dump Control P/N 6214. Models affected M-20 and M-20A Serial Nos. 1002-1574.

INTRODUCTION

Several cases have been reported in which the shaft of P/N 6214, Air Dump Control, became worn and caused the dump valve to bind. If this condition is allowed to continue, the shaft may break and the valve be carried into the carburetor. It is necessary that an inspection be made and that the following rework be accomplished if the shaft is defective. If P/N 6214 is not defective, it is recommended that this rework be accomplished when convenient to eliminate the possibility of a future failure. Parts are available at no charge.

Order Kit S. L. 20-64-2.

PARTS LIST

Kit S. L. 20-64-2	
(1) Air Dump Control P/N 6385	(1)
(2) AN 960-416L	(1)
(3) AN 960-416	(1)
(4) AN 380-3-3 (Pin Cotter)	(1)

INSPECTION INSTRUCTIONS

- (1) Remove left hand side cowl and inspect dump control P/N 6214 for wear and P/N 6186 for binding as shown in Figure 2.

REWORK INSTRUCTIONS

- (1) Remove old Carburetor Dump Valve P/N 6214.
- (2) Install Kit S. L. 20-64-2 as shown in Figure 2.

PART 3

Inspection and rework of Bearing Plates P/N 6176. Models affected, M-20 and M-20A Serial Nos. 1002 - 1542.

INTRODUCTION

Several cases have been reported in which the rivets which fasten bearing plates P/N 6176 to the air box failed and allowed the carburetor cold air valve shaft to wear on the air box sides. This action may cause the carburetor control to operate improperly. It is necessary that an inspection be made and that the following rework be accomplished if the rivets have failed. If the rivets are secure, it is recommended that this rework be accomplished when convenient to eliminate the possibility of a future failure. Parts are available at no charge.

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Order Kit S. L. 20-64-3.

PARTS LIST

Kit S. L. 20-64-3

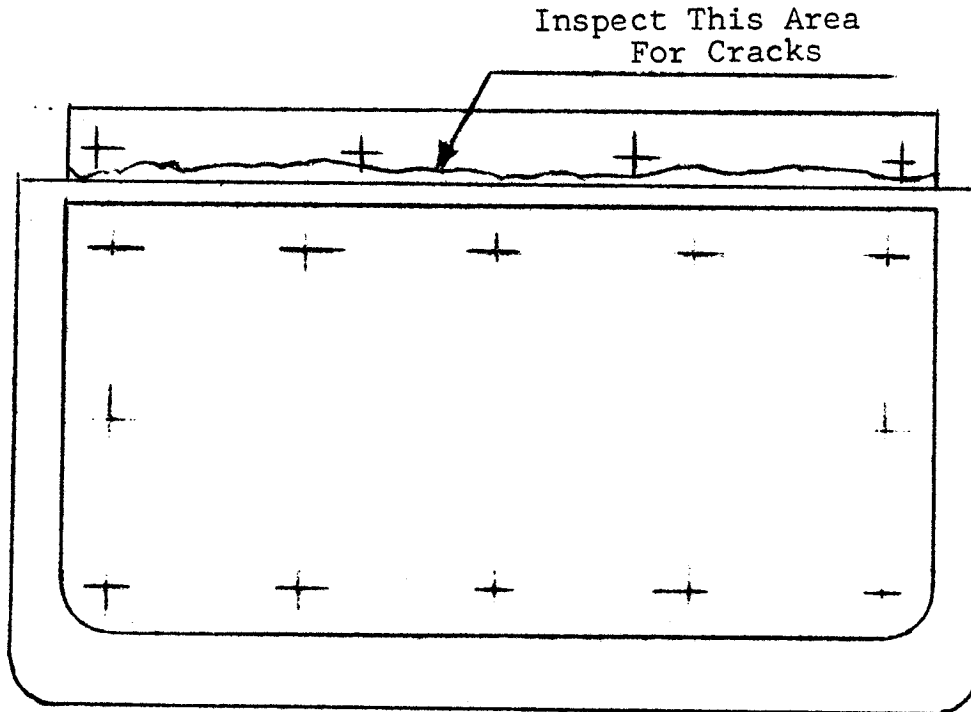
- (1) Bearing - P/N 6432 (2)
- (2) AN 470-A3 (8)

INSPECTION INSTRUCTIONS

- (1) Inspect P/N 6176 for looseness as shown in Figure 2.

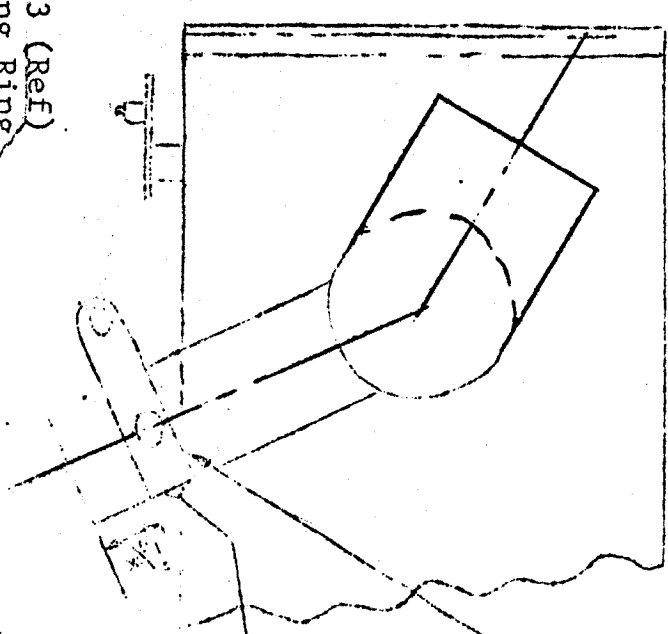
REWORK INSTRUCTIONS

- (1) Remove P/N 6176 (2 places).
- (2) Install Kit S. L. 20-64-3 as shown in Figure 2.



INSPECTION OF P/N 6175

FIGURE I



Relocate Bearing Ring P/N 6213
As Shown

Replace 4x $\frac{1}{2}$ Screw
With AN 470 A3
Install this side.

- AN 960-416 (1)
- AN 960-416L (1)
- AN 380-3-3 (1)

See Detail B for relocation of Bearing Ring P/N 6213

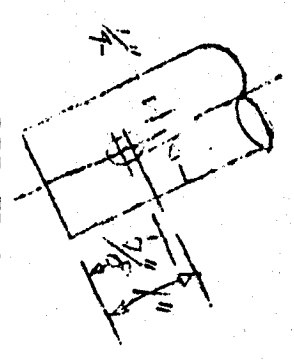
P/N 6186 Hot Air Dump Valve
Inspect for binding of valve.

P/N 6385 Air Dump Control
Replaces P/N 6214

Install 1/16 Welding Rod so that
P/N 6186 Fully Closed When
P/N 6175 is Fully Closed.

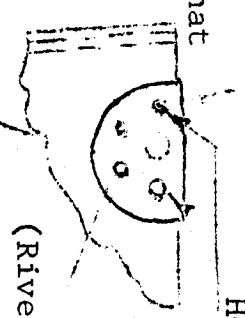
611/6 (2) (Ref)
Inspect for Looseness
(See Detail A for Repair)

6175 (Ref)
COLD AIR VALVE



DETAIL B
Elongate Hole in Air
Dump Tube

6432 (2)
Holes (2) of 6432
Match Existing
Holes in Air Box



DETAIL A
Install Kit S.L. 20-64-3
6432 Replaces 6176
AN 470A3 (8)
(Rivet Heads Inside Box)

FIGURE 2