



S.I. M20-72
7-1-84

SUBJECT: Aircraft Fueling Port Restrictor Kits

MODELS; S/N AFFECTED: Mooney Models M20C-S/N 2623 and ON, M20D-S/N 201 and ON, M20E-ALL, M20F-ALL, M20G-ALL, M20J-24-0001 thru 24-1467, M20K-25-0001 thru 25-0836

TIME OF COMPLIANCE: At owners earliest convenience.

INTRODUCTION: Misfueling of piston engine aircraft with jet engine fuel can result in engine stoppage and a serious accident. The N.T.S.B., F.A.A. and GAMA members have worked together, for several years, to develop fuel filler ports to accept only fueling nozzles that dispense the proper fuel for reciprocating engines. This type of fuel filler port is now available for retrofit on certain model aircraft (see above). Production versions will be installed on new aircraft during manufacture.

Shaw Aero Devices, Inc. has designed an adapter kit, P/N 531-035, which consists of retrofit components and tools required to insert these components into existing fuel filler ports.

It is recommended that the aircraft listed above be retrofitted with the adapter kit described in this Service Instruction. The adapter kit, P/N 531-035, (one kit required per aircraft) may be obtained from Mooney Aircraft Marketing or Service Centers at a special cost of \$75.00 (net) which is the cost to Mooney Aircraft plus a small fee for stocking, handling, etc. (Price subject to change).

INSTRUCTIONS:

1. Refer to Shaw Aero Devices Installation sheet that accompanies each adapter kit, P/N 531-035, for retrofit instructions.
2. The adapter kit may be installed or removed by a pilot under FAR's 43.3 (h) and 43.7(f).
3. When retrofit has been completed enter compliance note into log book and return aircraft to service.

REFERENCE DATA:

1. Shaw Aero Devices, Inc., Drawing No. 531-035.
2. Shaw Aero Devices, Inc., Instructions for installation of 531 series modification kit.
3. Mooney Drawing No. 940036.

PARTS LIST: Kit Part No. SI20-072-01 (M20C, D, E & G S/N as listed)

| QTY | P/N | DESCRIPTION |
|-----|---------------------|--------------------------------|
| 1 | 531-035 (Shaw Aero) | Kit, Retrofit, Fueling Adapter |
| 2 | 150080-55 | Decals |

Kit Part No. SI20-072-02 (M20F & J, S/N as listed)

| QTY | P/N | DESCRIPTION |
|-----|------------------------|-----------------------------------|
| 1 | 531-035 | Kit, Retrofit, Fueling Adapter |
| 2 | 150080-53 | Decals |
| AR | 150080-127 | Decals (Black Painted A/C Only) |
| AR | 150080-159 (Imp. Gals) | (optional) |
| | 150080-161 (liters) | Decals (S/N 24-1214 thru 24-1467) |

NOTE: ORDER AR DECALS SEPARATE

Kit Part No. SI20-072-03 (M20K S/N 25-0001 thru 25-0446)

| QTY | P/N | DESCRIPTION |
|-----|------------|--------------------------------|
| 1 | 531-035 | Kit, Retrofit, Fueling Adapter |
| 2 | 150080-101 | Decals |

Kit Part No. SI20-072-04 (M20K S/N 25-0447 thru 25-0836)

| QTY | P/N | DESCRIPTION |
|-----|------------------------|-----------------------------------|
| 1 | 531-035 | Kit, Retrofit, Fueling Adapter |
| 2 | 150080-171 | Decals |
| AR | 150080-131 | Decals (Black Painted A/C Only) |
| AR | 150080-163 (Imp. Gals) | (Optional) |
| | 150080-165 (Liters) | Decals (S/N 25-0613 thru 25-0836) |

NOTE: ORDER AR DECALS SEPARATE

FIGURES/TABLES: See Kit Instructions Sheet

SERVICE

BULLETIN



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(516) 537-1601
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NEW YORK OFFICE
P. O. BOX 80
WAINSCOTT, L. I. N. Y. 11975

SHAW AERO DEVICES, INC.

INDUSTRIAL ROAD
EAST HAMPTON, L. I., N. Y. 11937

S.A.D. # 84-010

SUBJECT:

Aircraft Fueling Port Restrictor Kit Installation.

PURPOSE:

Due to the frequent and increasing number of Aircraft misfueling incidents (i.e., piston powered aircraft being fueled with turbine fuel), a method to aid in the prevention of the aforementioned has been developed.

MATERIAL REQUIRED:

In addition to parts and tools provided, a needle nosed pliers and 3/8" slotted screwdriver will be required to assist in the installation of the restrictor kit.

SUMMARY:

Although installation of the restrictor kit described in the body of this service bulletin is not intended as a substitute for proper, thorough refueling procedures, it does minimize the possibility of misfueling when used in conjunction with S.A.E. standardized turbine fueling nozzles.



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KIT NUMBER: 531-035

PARTS LIST: (2) 531-001 Cap Assembly(s)
(2) 557-003 Adapter Insert(s)
(1) 557-025 Insert Installation Tool
(1) Instruction Sheet

REPLACEMENT PARTS: MS29513-338 Replacement Outer 'O' Ring

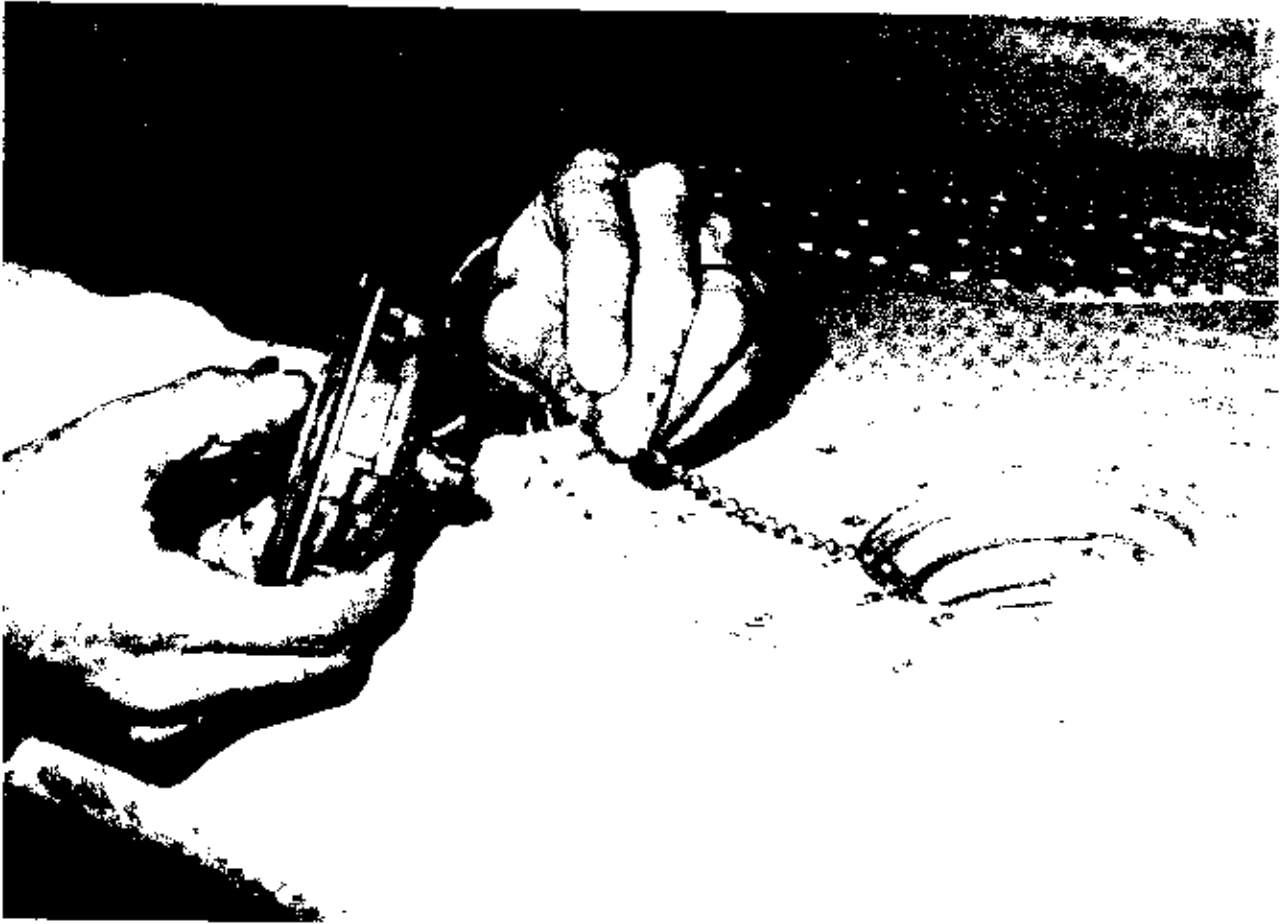
CAUTIONARY NOTE: Care must be exercised to prevent the introduction of foreign materials or tools into the fuel tank during installation efforts.

CAUTIONARY NOTE: Care must be exercised to prevent plugging of vent provisions or coating of seals and locking elements during painting operations (if applicable).

Refer to Airframe Manufacturer service instructions (if applicable) prior to proceeding with installation activities detailed in this document.



Instructions for Installation of 531/557 Series Restrictor Kit

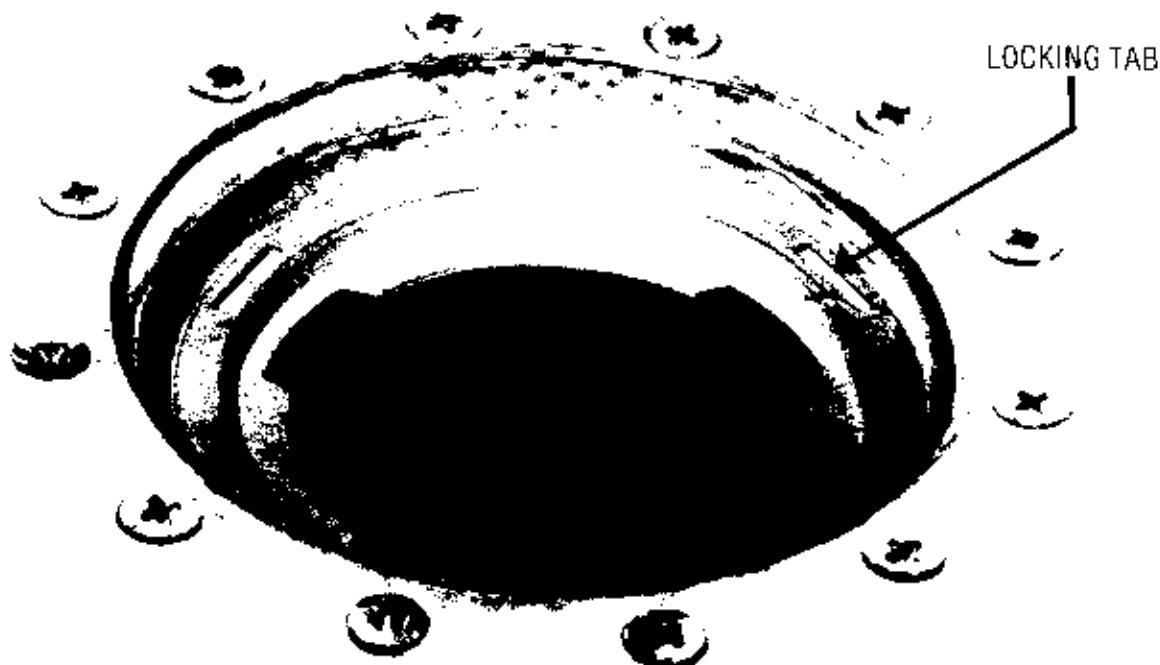


Remove existing cap assembly. If cap is attached to adapter with a lanyard, remove it from the cap. (This step should be accomplished holding cap over wing panel, away from filler neck.)

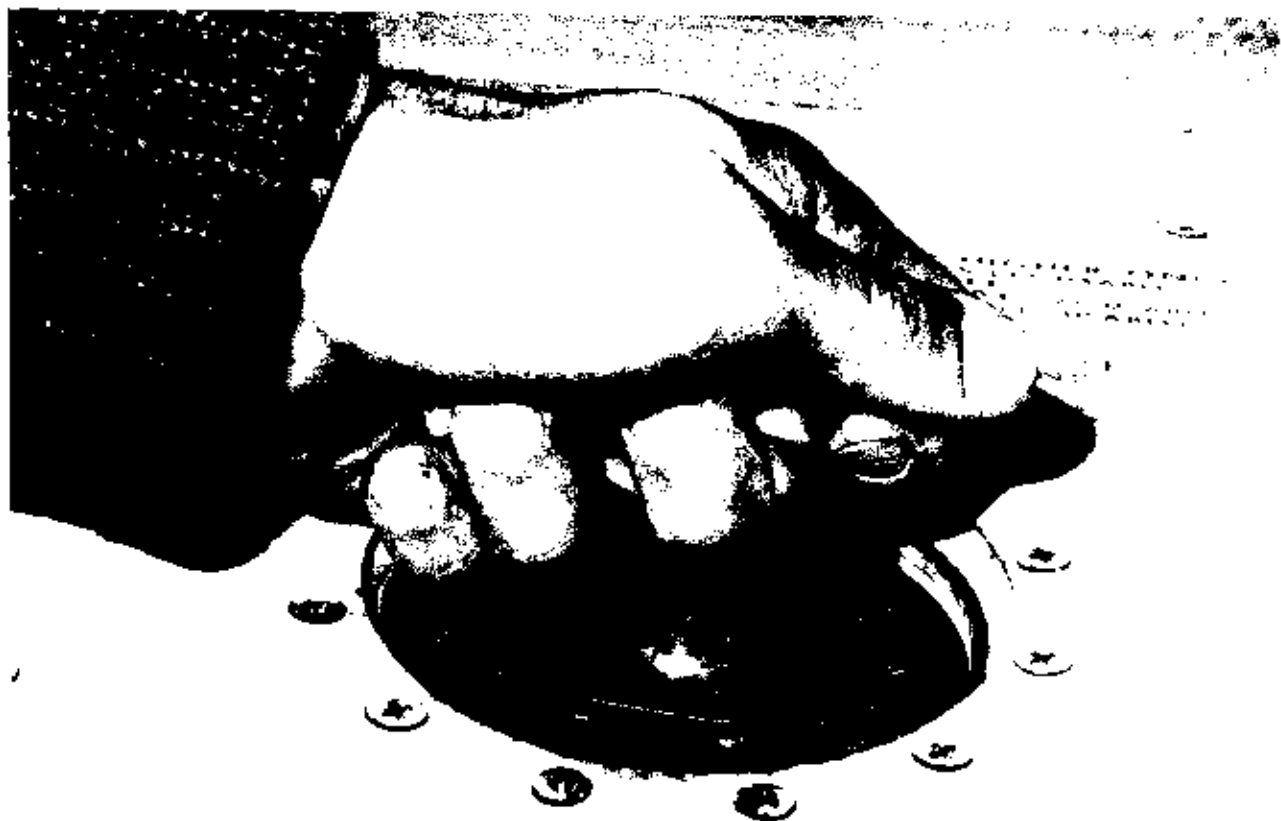


Position the adapter insert into the adapter opening.

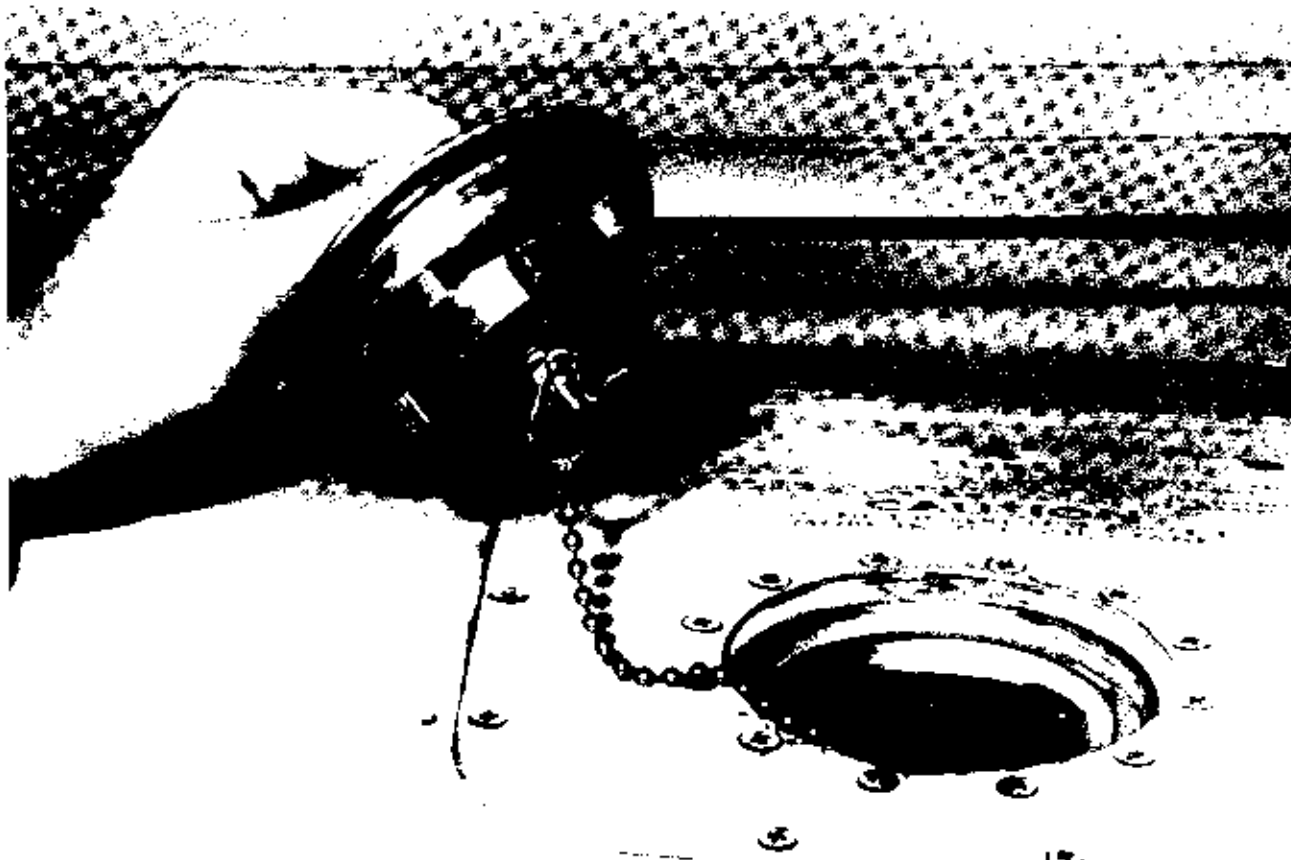
CAUTION
DO NOT FORCE THE INSERT INTO THE ADAPTER. THE INSERT WILL



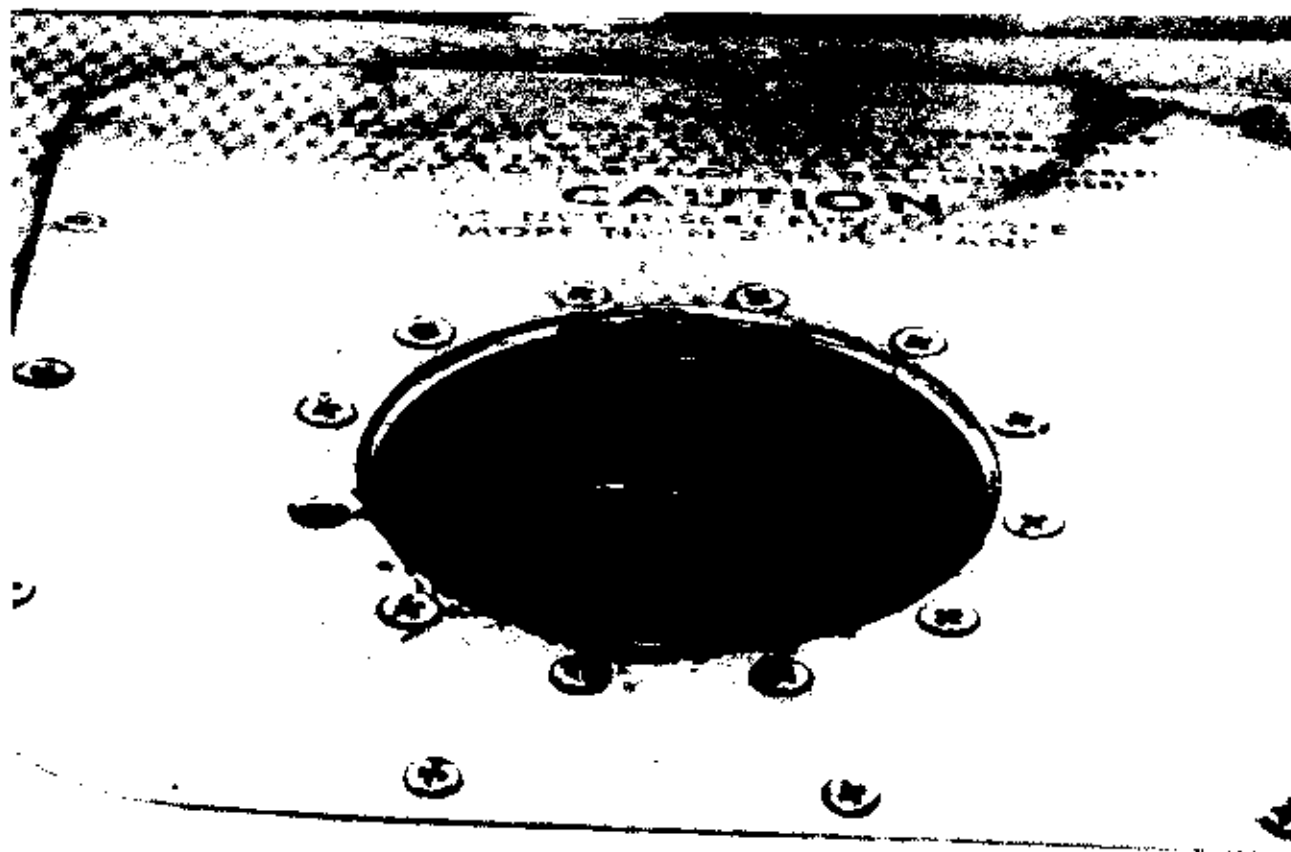
Insert properly positioned prior to locking.



Using the insert tool provided, push down and turn the tool and insert clockwise until the (3) locking tabs snap into the existing adapter. An audible "click" will be heard. Depress at least (1) locking tab with a 3/8" slotted screw driver to enhance locking characteristics of the insert. The insert is now in the fully locked position.



Attach the lanyard to the new cap and install in the same manner as the original cap.



Perform the necessary Airframe Log Book entries using corresponding airframe manufacturer and Shaw Aero reference numbers.