SUBJECT: Retrofit of Gerdes Fuel Selector Valve with Airight Fuel Selector Valve.

(REFERENCE AD # 95-18-12)


TIME OF COMPLIANCE: Within next 50 hours of operation.

INTRODUCTION: There has been one incident reported of a Gerdes fuel selector valve malfunction. However, any malfunction that will not allow fuel tank selection may lead to an off field landing, therefore, the FAA has determined that retrofit of Gerdes fuel selector valves, A-2580, in the Mooney M20K aircraft, is mandatory.

INSTRUCTIONS:

1. Drain fuel from fuel tanks into suitable containers.
2. Remove belly skins from fuel selector location.
3. Remove escutcheon and carpet from inside cabin to gain access to top side of floorboard at fuel selector valve area.
5. Use Figure SB M20-256-1 as a reference to locate aircraft center line and existing bends in floorboard.
6. Layout new hole cutout on floorboard (over existing cutout) for new fuel selector valve according to dimensions of Figure SB M20-256-1.
7. Smooth all edges of cutout on floorboard.
8. Install fuel selector valve/fitting assembly, 610256-920, and new 610256-047 tube assembly to existing tube assemblies. Slight rotation of elbows may be necessary to match existing tubes. Do not tighten mounting screws on fuel selector valve until all tube fittings are tight.
9. Do not put valve assembly and attaching tubes into a bind when installing mounting screws to valve flange. Reposition all components as needed to prevent binding.

NOTE
Gerdes valve has 3/8 inch NPT threads and new valve has UNF threads. Therefore, new adapter fittings are supplied with new valve to allow connection to existing tube assemblies.

10. The 610256-047 tube assembly will replace the 610256-021 tube assembly.
11. Leak check all fitting connections.

NOTE
It is recommended that only partial fueling of both wing tanks be done until all fittings have been leak checked and determined to be satisfactory.

12. Refuel both aircraft fuel tanks sufficiently to test run engine and verify fuel selector valve will switch from LEFT and RIGHT tank and engine continues to run and to the OFF position and engine will quit.

REFERENCE DATA: AIRWORTHINESS DIRECTIVE BEING PREPARED BY THE FAA.
## Parts List (Kit Part Number — SB-M20-256-1)

<table>
<thead>
<tr>
<th>ITEM</th>
<th>P/N</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>610256-047</td>
<td>Tube Assembly</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>610256-920</td>
<td>Valve/Fitting Assembly</td>
<td>1</td>
</tr>
</tbody>
</table>

Consisting of the following assembled components:
- 610289-001, Valve, Fuel Selector, Qty 1
- AN815-8D, Union, Qty 3
- AN815-4D, Union, Qty 2
- AN924-8D, Nut, Qty 1
- MS29512-08, O’Ring, Qty 3
- MS29512-04, O’Ring, Qty 3
- 610272-001, Elbow, Qty 1

### Figures/Tables:
- See Figure SBM20-256-1 below

---

**Figure SB M20-256-1**

(existing location for Gerdes valve)

(existing location for new fuel selector valve)

(Floorboard cutout required for new fuel selector valve)

(Aircraft center line)

Existing floorboard

Existing floorboard cutout not shown complete

(dimensions are in inches)