

## Instructions for Continued Airworthiness

McFarlane Aviation Inc. FAA-PMA Part Number MC2016021-4 Fuel Reservoir Plunger  
 FAA PMA Number: PQ3732CE FAA Project Number: PM5303WI-A

### INTRODUCTION

This document is intended to provide for the continued airworthiness of McFarlane Aviation, Inc. Part Number MC2016021-4 Fuel Reservoir Plunger. It is specifically concerned with the elimination of P/N 2391-2 Washer and P/N 5103-25MF Snap Ring when P/N MC2016021-4 is installed. For all items not related to the altered MC2016021-4 installation, refer to the basic airplane model service and parts manuals.

### SYSTEM DESCRIPTION

Cessna Model 177RG/F177RG aircraft incorporate a reservoir tank which serves as an in-line condensate trap. P/N 2016021-9 is a drain valve attached to this tank. The main component of this valve is a plunger, P/N 2016021-4. McFarlane Aviation, Inc. P/N MC2016021-4 is a direct PMA replacement for Cessna P/N 2016021-4. P/N MC2016021-4 differs from the OEM part in that a) it employs an elastomer tip with greater fuel resistance than the OEM part and b) it features an integral surface for the spring, eliminating the snap ring and washer.

### SPECIAL OPERATING INFORMATION

The control and operation of the fuel reservoir tank drain valve does not change with the installation of the new plunger assembly; see Cessna Model 177RG Service Manual Section 12 for the operational control of this system.

### PART REMOVAL, REPLACEMENT, AND SERVICE INFORMATION

Refer to the Cessna Model 177RG Service Manual for installation/maintenance instructions and the Cessna Model 177RG Illustrated Parts Catalog for component part numbers. The following exception applies:

**Washer (P/N 2391-3) and Snap Ring (P/N 5103-25MF) are NOT used when installing McFarlane P/N MC2016021-4.**

### TROUBLESHOOTING

Fuel reservoir tank drain valve malfunctions that may be indicative of a defective, damaged, or overly worn P/N MC2016021-4 plunger include:

- Fuel leaking from drain when valve is in the "off" position
- Fuel leaking from valve cap
- Weak flow from drain valve

If any of the above malfunctions occur, remove and inspect the MC2016021-4 plunger. If the problem is attributed to the plunger, it must be replaced.

### PLACARDS

None applicable

### DATA

All information to support the continued airworthiness of this modification is as defined herein and contained in:

- Cessna Model 177RG Service Manual
- Cessna Model 177RG Illustrated Parts Catalog

### INSPECTION

McFarlane Aviation, Inc. P/N MC2016021-4 is only inspected during removal and must be replaced if any signs of damage or wear are seen.

### RECOMMENDED OVERHAUL PERIODS

No additional overhaul time limitations exist with the use of this part.

### AIRWORTHINESS LIMITATIONS

The Airworthiness Limitations section is FAA approved and specifies maintenance required under Sec. 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved. No additional airworthiness limitations exist.

### ASSISTANCE & REVISIONS

Revisions to this ICA may not be distributed without prior FAA acceptance. Once an ICA revision is accepted by FAA, it shall be distributed to all registered owners by either U.S. mail or via internet email at the election of the PMA holder. The PMA holder shall retain a list of all registered owners. This list shall be made available to FAA for any Continued Operational Safety issues (Airworthiness Directive, etc.) that arise concerning this PMA. For questions or assistance regarding these Instructions for Continued Airworthiness (ICA), contact the Wichita Aircraft Certification Office at 316-946-4100, or by mail at 1801 Airport Road, Room 100, Wichita, KS 67209

		 <b>McFarlane</b> McFarlane Aviation, Inc. 696 E 1700 Rd, Baldwin City, KS 66006	Engineering Mgr  Project Engineer	Quality Mgr  Manufacturing Mgr  Page: 1 of 1 12-16-09
A	12/14/09	Revised per FAA comment		
~	12/4/09	Original Release		
"X": Bold letter indicates Revision Level.		REVISION <b>A</b>	Title: MC2016021-4 Instructions for Continued Airworthiness Drawing No: <b>6436</b>	