



McFarlane Aviation Products

Instructions for Continued Airworthiness

McFarlane Aviation Inc. FAA-PMA Part Numbers MC0552144-14, MC0752000-116, MC0752014-15,
MC0752625-200, MC1213261-200, MC1213469-205, and MC1752091-13 COWL FLAP HINGE
FAA PMA Number: PQ3732CE

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www.mcfarlaneaviation.com/ica

Approved By:


Quality Assurance Manager


Engineering Manager


Production Manager

Revisions

Revision	Date	Summary
Original	10/01/2014	ORIGINAL RELEASE
A	10/27/2014	Updated instructions to explicitly use same type rivets as removed

List of Effective Pages

Page	Rev/Date
ALL	ORIGINAL RELEASE, 10/01/2014
3	REVISION A, 10/27/2016

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INTRODUCTION

This document is intended to provide for the continued airworthiness of McFarlane Aviation, Inc. PMA Cowl Flap Hinge assemblies eligible for installation on various Cessna single engine aircraft. The eligible part numbers are MC0552144-14, MC0752000-116, MC0752014-15, MC0752625-200, MC1213261-200, MC1213469-205, and MC1752091-13. For all items not related to the installation of the McFarlane Aviation, Inc. Cowl Flap hinges, refer to the basic airplane model service and parts manuals.

SYSTEM DESCRIPTION

Cessna Model Series FR172, R172K, 177B, 180, 182, 185, A185, 206, P206, TP206, TU206, U206, 210, P210, T210, 210-5 (205), 210-5A, and (205A) aircraft incorporate the use of at least one cowl flap hinge to attach the cowl flap to the engine cowling. McFarlane Aviation, Inc. cowl flap hinges are direct PMA replacement for Cessna P/Ns 0552144-14, 0752000-116, 0752014-15, 0752625-200, 1213261-200, 1213469-205, and 1752091-13.

Note: McFarlane Aviation, Inc. part numbers are derived from the corresponding OEM part number by adding a "MC" prefix.

Table-1 APPLICABLE ELIGIBILITY BASED ON PART NUMBER

Cowl Flap Hinge	Eligible Aircraft
MC0552144-14	FR172J*, FR172K, R172K
MC0752000-116	180, 180A, 180B
MC0752014-15	180C, 180D, 180E, 180F, 180G, 180H, 180J, 180K, 182B, 182C, 182D, 185, 185A, 185B, 185C, 185D, 185E, A185E*, A185F*
MC0752625-200	182E, 182F, 182G, 182H, 182J, 182K, 182L, 182M, 182N, 182P*, 182Q, 182R*, T182*
MC1213261-200	P206E, TU206E, TU206F*, TU206G, U206E, U206F*, U206G, 210J, 210K, 210L, 210M, 210N, 210R, P210N, T210J, T210K, T210L, T210M, T210N
MC1213469-205	210-5 (205), 210-5A (205A), 206, P206, P206A, P206B, P206C, P206D, TP206A, TP206B, TP206C, TP206D, TU206A, TU206B, TU206C, TU206D, U206, U206A, U206B, U206C, U206D, 210B, 210C, 210D, 210E, 210F, 210G, 210H, T210F, T210G, T210H
MC1752091-13	177B
* Indicates partial eligibility. Verify part eligibility before installation. All cowl flap hinge eligibility contained on McFarlane drawing 6866. The most current version of this drawing can be found at www.mcfarlaneaviation.com	

SPECIAL OPERATING INFORMATION

The control and operation of the cowl flaps does not change with the installation of the McFarlane FAA-PMA cowl flap hinges; see applicable Cessna Service Manuals for the operational control of this system.

PART REMOVAL, REPLACEMENT, AND SERVICE INFORMATION

Remove the cowl flap hinge and install the McFarlane cowl flap hinge as per the applicable Cessna Model Service Manual.

Refer to the applicable Cessna Model Service Manual for installation/maintenance instructions and the applicable Cessna Illustrated Parts Catalog for component part numbers.

There are no exceptions to the Cessna instructions when installing the McFarlane hinge assemblies.

The McFarlane cowl flap hinges are selective fit assemblies. These hinges cannot be interchanged with other hinge components (pins or hinge halves), and must only be installed as a complete hinge assembly. Replacement of individual McFarlane and Cessna cowl flap hinge components is not allowed.

The following instructions, specific to the McFarlane parts, apply:

Supplemental Instructions - Hinge Rivet Hole Drilling

McFarlane Aviation is aware of instances of alternative hole patterns in the original parts. This may consist of additional holes and/or larger sized holes. Similar conditions may also exist due to poorly performed hinge replacements or bad maintenance. For these reasons, McFarlane Aviation supplies the hinge assemblies drilled to receive the smallest rivets for installation (3/32" holes (#40 drill) for #3 sized rivets) with the intent that all parts be match drilled to fit its particular installation.

Use the following instructions to place and size rivet holes for the McFarlane FAA-PMA cowl flap hinge assembly.

1. After removing the existing cowl flap hinge, measure and record the hole diameters of the removed hinge assembly.
2. Using the appropriate sized drill bit, transfer the recorded hold diameters to the FAA-PMA hinge assembly. Use the information given in Table 2 to select the correct drill bit.

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Table 2 Drill Sizes for Various Aircraft Rivets

Rivet Number (#)	Rivet Size (in)	Drill Number (#)	Drill Size (in)
3	3/32	41	.0960
4	1/8	30	.1285
5	5/32	21	.1590
6	3/16	11	.1910

3. Match drill any holes that are in the original hinge, but not in the McFarlane FAA-PMA hinge.
4. Verify that the edge distance and rivet spacing of all holes adhere to AC65-15A and/or AC43.13-1B for proper rivet spacing edge distance requirements.
5. Test fit the drilled hinge; use the appropriate sized clecos to attach the hinge to cowling and cowl flap. Verify that parts fit properly and that the cowl flap is functional.
6. Install hinges using the same type rivets as removed. Use the next larger size if required.
7. Complete installation with Cessna Model Service manual installation/maintenance instructions.

TROUBLESHOOTING

Refer to the applicable Cessna Model Service Manuals for troubleshooting instructions and the applicable Cessna Illustrated Parts Catalogs for component part numbers.

PLACARDS

None applicable

DATA

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

-) Relevant Cessna Service Manuals.
-) Relevant Cessna Illustrated Parts Catalog.

INSPECTION

RECOMMENDED OVERHAUL PERIODS

No additional overhaul time limitations exist with the use of these parts.

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

ICA revisions shall be made available on the McFarlane website, www.mcfarlaneaviation.com/ICA. For questions or assistance regarding these Instructions for Continued Airworthiness (ICA), contact McFarlane Aviation, Inc via email or phone. Email: engineering@mcfarlaneaviation.com Phone: 1-800-544-8594 (within the US) or 1-785-594-2741.