

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS



Middle Fork Mods. LLC

TAIL TIE-DOWN REPLACEMENT

APPROVED MODEL LIST STC

FAA ACTION		
Seattle Aircraft Certification Office		
<input type="checkbox"/> Approve	<input type="checkbox"/> EASA CS	<input type="checkbox"/> JARs
<input type="checkbox"/> Reject	<input checked="" type="checkbox"/> CARs	<input checked="" type="checkbox"/> CFRs
<input type="checkbox"/> Acknowledge	<input type="checkbox"/> Concur	<input checked="" type="checkbox"/> Accept
TSO/Project # <u>SA135243E-A</u>		
Comments: <u>NO AWLS ARE AFFECTED BY THIS STC.</u>		
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<u>AEG</u>	<u>THANEROCK HILL</u>	<u>7/18/19</u>
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LOG OF REVISIONS

Revision	Date	Description of Change	Prepared	Approved
0	8/10/2017	Initial Internal Release	Hodgson	West
1	9/22/2017	Initial FAA Release	Adams	West
2	12/22/2017	<ul style="list-style-type: none"> • Sec. 2, updated contact information for Middle Fork Mods • Figure 3-1, updated image • Sec. 8, added paint as an option for placard application 	Adams	West
3	05/24/2019	<ul style="list-style-type: none"> • Added support for installations on 172 and 175 series aircraft • Sec. 1.1, added reference material for 172 and 175 series aircraft • Table 1-1, added 172 and 175 series columns • Throughout document, updated modification instruction references to include references to modification instruction document for 172 and 175 series aircraft 	Hodgson	West

Company Proprietary Information

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TABLE OF CONTENTS

1. Introduction.....1

 1.1 References.....3

 1.2 Definitions4

2. Revisions & Amendments4

3. System Description.....4

4. Special Operating Information4

5. Service Information5

6. Troubleshooting5

7. Parts Removal and Replacement5

8. Placards and Markings.....5

9. Data5

10. Inspections6

 10.1 Inspection Requirements6

 10.2 Inspection Notes6

 10.3 Annual and/or 100 Hour Inspections.....7

11. Recommended Overhaul Periods.....8

12. Airworthiness Limitations.....8

LIST OF FIGURES

FIGURE 3-1, REPLACEMENT TAIL TIE-DOWN INSTALLATION4

FIGURE 8-1, “◀TIE DOWN HERE” PLACARD.....5

1. INTRODUCTION

This document is intended to provide Instructions for Continued Airworthiness in support of the installation of a replacement tail tie-down on certain Textron model aircraft modified in accordance with the Modification Instructions (reference 1.1.3 and 1.1.4).

This document is specifically concerned with the maintenance of the tail tie-down installation on the applicable aircraft listed below. The information contained in this ICA supplements or supersedes the basic aircraft service manuals only in those areas outlined herein. For limitations, procedures and information not contained in this manual, consult the basic aircraft(s), service manuals.

NOTE

This document must be placed into the aircraft operator's Aircraft Maintenance Manual and incorporated into the aircraft's scheduled maintenance program.

Table 1-1, Applicable Aircraft Models

Make	Series					
	172 Series	175 Series	182 Series	206 Series	207 Series	210 Series
Textron	172	175	182	206	207	210
	172A	175A	182A	P206	207A	210A
	172B	175B	182B	P206A	T207	210B
	172C	175C	182C	P206B	T207A	210C
	172D		182D	P206C		210D
	172E		182E	P206D		210E
	172F (USAF T-41A)		182F	P206E		210F
	172G		182G	U206		T210F
	172H (USAF T-41A)		182H	U206A		210G
	172I		182J	206H		T210G
	172K		182K	U206B		210H
	172L		182L	U206C		T210H
	172M		182M	U206D		210J
	172N		182N	U206E		T210J
	172P		182P	U206F		210K
	172Q		182Q	U206G		T210K
	172R		182R	TP206A		210L
	172S		182S	TP206B		T210L
	P172D		182T	TP206C		210M
	R172E (USAF T-41B) (USAF T-41C or D)		R182	T206H		T210M
	R172F (USAF T-41D)		T182	TP206D		210N
	R172G (USAF T-41C or D)		T182T	TP206E		T210N
	R172H (USAF T-41D)		TR182	TU206A		210R
	R172J			TU206B		210-5 (205)
	R172K			TU206C		210-5A (205A)
	172RG			TU206D		P210N
	F172D			TU206E		P210R
	F172E			TU206F		T210R
	F172F			TU206G		
	F172G					
	F172H					
	F172K					
	F172L					
	F172M					
	F172N					
	F172P					
	FP172D					
	FR172E					
	FR172F					
	FR172G					
	FR172H					
	FR172J					
FR172K						

1.1 References

- 1.1.1 14 CFR Part 23
- 1.1.2 Middle Fork Mods Document 16-020-SC4301, Master Data List
- 1.1.3 Middle Fork Mods Document 16-020-AE3301, Modification Instructions
- 1.1.4 Middle Fork Mods Document 16-020-AE3302, Modification Instructions
- 1.1.5 Cessna Maintenance Manual 182SMM14, Model 182/T182, 1997 And On
- 1.1.6 Cessna Maintenance Manual 206HMM13, Model 206/T206, 1998 And On
- 1.1.7 Cessna Illustrated Parts Catalog P257-12, Model 172 & 175, 1962 and Prior
- 1.1.8 Cessna Illustrated Parts Catalog P529-12, Model 172, P172, F172, FP172, 1963-1974
- 1.1.9 Cessna Illustrated Parts Catalog P534-12, Model FR172, 1968-1976
- 1.1.10 Cessna Illustrated Parts Catalog P696-12, Model 172, 1975-1986
- 1.1.11 Cessna Illustrated Parts Catalog P693-12, Model 172RG, 1980-1985
- 1.1.12 Cessna Illustrated Parts Catalog P968-12, Model R172, 1977-1973
- 1.1.13 Cessna Maintenance Manual 172RMM17, Model 172 Series, 1996 & On
- 1.1.14 Cessna Parts Catalog 206HPC22, Model 206, 1998 And On
- 1.1.15 Cessna Parts Catalog, Cessna 210B, C, D, E, F, T210, 1962-1967
- 1.1.16 Cessna Parts Catalog P697-12, Model P210, 1978 Thru 1986
- 1.1.17 Cessna Service Manual D138-13, Cessna 100 Series, 1962 and prior
- 1.1.18 Cessna Service Manual D637-1-13, Cessna 100 Series, 1963 Thru 1968
- 1.1.19 Cessna Service Manual D972-4-13, Model 172 Skyhawk Series, 1969 Thru 1976
- 1.1.20 Cessna Service Manual D2006-4-13, Model 182, 1969 Thru 1976
- 1.1.21 Cessna Service Manual D2065-3-13, Model 172 Series, 1977 Thru 1986
- 1.1.22 Cessna Service Manual D2068-3-13, Model 182 & T182, 1977 Thru 1986
- 1.1.23 Cessna Service Manual D2069-3-13, Model R182 & TR182, 1978 Thru 1986
- 1.1.24 Cessna Service Manual D310-13, Cessna 200 Series, 1965 and prior
- 1.1.25 Cessna Service Manual D606-16, Cessna 200 Series, 1966 Thru 1968
- 1.1.26 Cessna Service Manual D2007-3-13, Model 206 & T206, 1969 Thru 1976
- 1.1.27 Cessna Service Manual D2070-3-13, Model 206 & T206, 1977 Thru 1986
- 1.1.28 Cessna Service Manual D2008C1-13S, Model 207, 1969 Thru 1975
- 1.1.29 Cessna Service Manual D2060-1-13, Model 207, 1969-1984
- 1.1.30 Cessna Service Manual D693-13, Model 210, 1969
- 1.1.31 Cessna Service Manual D2004-5-13, Centurion Series, 1970 Thru 1976
- 1.1.32 Cessna Service Manual D2057-3-13, Model 210 & T210, 1977 Thru 1984
- 1.1.33 Cessna Service Manual D2058-2-13, Model P210, 1978 Thru 1983
- 1.1.34 Cessna Service Manual D2074-2-13, Model P210, 1985 Thru 1986
- 1.1.35 Cessna Service Manual D2073-2-13, Model 210 & T210, 1985 Thru 1986
- 1.1.36 FAA TCDS 3A12, Revision 84, Cessna 172 Series Aircraft
- 1.1.37 FAA TCDS A43U, Revision 14, Cessna F172 Series Aircraft
- 1.1.38 FAA TCDS A18EU, Revision 8, Cessna FR172 Series Aircraft
- 1.1.39 FAA TCDS 3A13, Revision 72, Cessna 182 Series Aircraft
- 1.1.40 FAA TCDS 3A17, Revision 47, Cessna 175 Series, P172D, R172 Series, and 172RG Aircraft
- 1.1.41 FAA TCDS A4CE, Revision 49, Cessna 206 Series Aircraft
- 1.1.42 FAA TCDS A16CE, Revision 23, Cessna 207 Series Aircraft
- 1.1.43 FAA TCDS 3A21, Revision 29, Cessna 210 Series Aircraft
- 1.1.44 Textron Aviation Illustrated Parts Catalog 172RPC26, Model 172, 1996 and On

1.2 Definitions

1.2.1	CFR	Code of Federal Regulations
1.2.2	FAA	Federal Aviation Administration
1.2.3	ICA	Instructions for Continued Airworthiness
1.2.4	MDL	Master Data List
1.2.5	STC	Supplemental Type Certificate
1.2.6	TCDS	Type Certificate Data Sheet

2. REVISIONS & AMENDMENTS

All ICA changes will be submitted to the FAA for review and acceptance by the Aircraft Certification Office and the Aircraft Evaluation Group prior to issuance to the field. Revisions to this ICA may not be distributed without prior FAA acceptance. Once an ICA revision is accepted by the FAA it shall be distributed to all registered owners by either U.S. mail or internet email at the election of the STC holder. The STC holder shall retain a current list of all registered owners. This list shall be made available to the FAA for any Continued Operational Safety issues that arise concerning the STC. For questions or assistance regarding these Instructions for Continued Airworthiness, contact:

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3. SYSTEM DESCRIPTION

Textron aircraft modified in accordance with the applicable Modification Instructions (reference 1.1.3 or 1.1.4) include the removal of the factory eyelet style tail tie-down and the installation of a replacement tail tie-down structure as shown below. The tail tie-down replacement eliminates the single point attachment associated with the factory tie-down and utilizes multiple attachment points at the two most rearward bulkheads.

The tail tie-down replacement utilizes the large hole shown and labeled in Figure 3-1 as the tie-down location.



Figure 3-1, Replacement Tail Tie-Down Installation

4. SPECIAL OPERATING INFORMATION

Refer to the applicable aircraft Pilot's Operating Handbook for any special operating instructions and all aircraft operating limitations.

No operating limitations were affected by this modification.

5. SERVICE INFORMATION

- Installation and Removal: Refer to the applicable Modification Instructions (reference 1.1.3 or 1.1.4)
- Parts: Refer to the applicable Modification Instructions section 1.4 (reference 1.1.3 or 1.1.4)

6. TROUBLESHOOTING

For trouble shooting of the replacement tail tie-down installation, refer to the applicable Modification Instructions (reference 1.1.3 and 1.1.4).

7. PARTS REMOVAL AND REPLACEMENT

- Installation and Removal: Refer to the applicable Modification Instructions (reference 1.1.3 or 1.1.4)
- Parts: Refer to the applicable Modification Instructions section 1.4 (reference 1.1.3 or 1.1.4)

8. PLACARDS AND MARKINGS

The tail tie-down must remain permanently marked on both sides, with indelible ink or paint, the text:

“◀ TIE DOWN HERE” with the arrow pointing to the large hole as shown in Figure 8-1.

Text Height: 0.25” minimum

NOTE: If optional Tie-Down Reinforcement assembly is installed, the “◀ TIE DOWN HERE” text must be permanently marked on both sides of the Tie-Down Reinforcement assembly, allowing the text to be legible with the optional assembly installed.

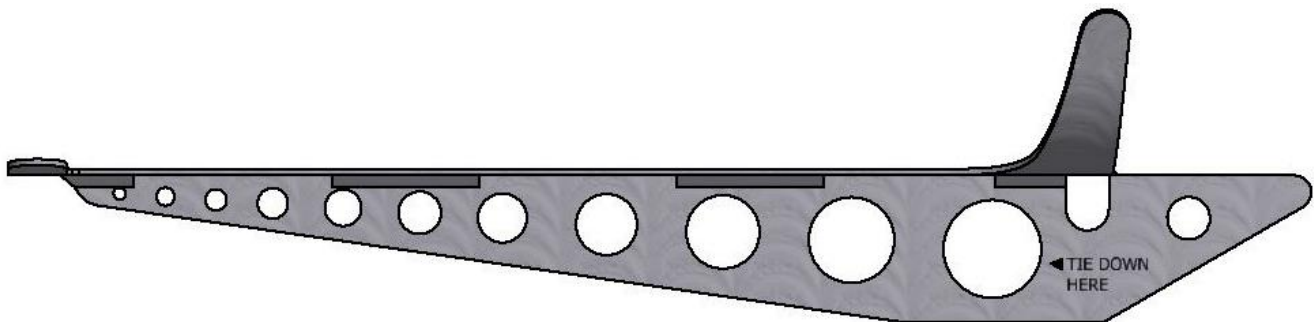


Figure 8-1, “◀ TIE DOWN HERE” Placard

9. DATA

All information to support the continued airworthiness of this modification is contained in:

- the MDL (reference 1.1.2).
- the applicable service information defined in Section 5, above.

10. INSPECTIONS

The following inspections, tests, and/or procedures must be included in the basic maintenance plan for the applicable aircraft modified in accordance with the Modification Instructions (reference 1.1.3 and 1.1.4) to ensure continued airworthiness of the aircraft.

NOTE: For all cases in which the instructions in this document and the Aircraft Maintenance Manual are in conflict, the most restrictive instructions take precedence.

NOTE: The time limits and maintenance checks recorded in this section are for the minimum requirements for airplanes operated under normal conditions. For airplanes that operate in areas of bad conditions, such as high salt coastal environments, areas of high heat and humidity, areas where industrial or other airborne pollutants are present, extreme cold, unimproved surfaces, etc., the time limits shall be changed as necessary.

10.1 Inspection Requirements

10.1.1 Three basic types of inspections are available as defined below:

10.1.2 As required by Title 14 of the Code of Federal Regulations Part 91.409(a), all civil airplanes of U.S. registry must have a complete examination each 12 calendar months. In addition to the required annual inspection, airplanes operated commercially (for hire) must also have an inspection each 100 hours of operation as required by Title 14 of the Code of Federal Regulations Part 91.409(b).

10.1.3 Instead of the above requirements, an airplane can be examined with progressive inspection program that agrees with Title 14 of the Code of Federal Regulations Part 91.409(d), which allows the work be divided into smaller operations that can be accomplished in a shorter time period.

10.1.4 If an airplane is being operated under a Title 14 of the Code of Federal Regulations Part 135 Certificate, the operator may choose to use an Approved Aircraft Inspection Program.

10.2 Inspection Notes

10.2.1 When specified inspections in this section are accomplished, a general visual inspection of the adjacent areas must also be accomplished while access is available. These general visual inspections may reveal conditions which require additional maintenance activity.

10.2.2 Inspection items are provided for specified components and systems. The inspection program must incorporate professionalism and good judgment by all inspection personnel. The technician must ensure all components and systems are in good condition and maintained to the highest standards of safety.

10.3 Annual and/or 100 Hour Inspections

10.3.1 At each annual and/or 100-hour inspection check the tail tie-down installation for:

- Loose hardware
 - If loose, tighten in accordance with the modification instructions (reference 1.1.3 and 1.1.4).
- Missing hardware
 - If missing, replace in accordance with the modification instructions (reference 1.1.3 and 1.1.4).
- Legibility of placard as defined in section 8, above.
 - If placard is damaged, repair in accordance with section 8.
- Sealant (optional)
 - If sealant is damaged and/or no longer forming a complete seal around the perimeter of the tie-down, remove damaged sealant, clean affected area, and reapply sealant in accordance with applicable Modification Instructions (reference 1.1.3 or 1.1.4).
 - If sealant was not applied at installation, it may be applied at any time in accordance with applicable Modification Instructions (reference 1.1.3 or 1.1.4).
- Tie-Down Reinforcement assembly (optional)
 - The Tie-Down Reinforcement assembly is an optional assembly and may be installed, removed, or replaced in accordance with applicable Modification Instructions (reference 1.1.3 or 1.1.4).

11. RECOMMENDED OVERHAUL PERIODS

Not applicable to this modification.

12. AIRWORTHINESS LIMITATIONS

The Airworthiness Limitations Section is FAA approved and specifies maintenance required under Title 14 Code of Federal Regulations Parts 43.16 and 91.403 unless an alternative program has been FAA approved.

There are no changes to the Airworthiness Limitations Section as a result of this modification.



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