

## 1026 S. 66<sup>th</sup> Street, Hangar 33 Woodring Regional Airport Enid, OK 73701

# **INSTRUCTIONS FOR CONTINUED AIRWORTHINESS**

For:

FUSELAGE-STRUT, MAIN LANDING GEAR AND WING FITTINGS AND WING-FLAP TRACK FITTING REPLACEMENT FOR CESSNA 208 AND 208B AIRCRAFT

## Document No.: 11534000-600

**Revision (B)** 

Date: 09/19/2016 Revision Date: 07/21/2017

Applicable to:

Cessna 208 and 208B

Fabricated per FAA – STC: SA01850WI

The information in this Instruction for Continued Airworthiness is FAA accepted material and complies with 14 CFR 23.1529, Instructions for Continued Airworthiness. It supersedes or adds to that provided in the Maintenance Manual for the Cessna 208 and 208B Aircraft, only where covered in the items contained herein. For limitations and procedures not contained in the Supplement, consult the Component Maintenance Manual, or other approved aircraft data.

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## **REVISION PAGE Instructions for Continued Airworthiness**

Prepared By: Martin W. McCaslin

Reviewed By: <u>Donald E. Shepherd, Jr.</u> Updates to the ICA will be made by Aircraft Structures International Corp. Updates will be listed in the Log of Revisions and the List of Effective Pages below.

Log of Revisions					
REV. NO.	EFFECTED PAGE(S)	DESCRIPTION	DATE		
Orig. Issue	All	Initial Release Rev (IR)	09/19/2016		
A	All	<ul> <li>Per FAA comments sent on October 21, 2016 the following updates to the ICA are made:</li> <li>Investigation and classification of damage from Section 2.0 is moved to Appendix C of document no. 11534000-001 Modification Procedure.</li> <li>Corrosion removal and prevention methods is removed.</li> <li>Inspection techniques and instructions from Appendix A is moved to Appendix B of document no. 11534000-001 Modification Procedure.</li> <li>Section 2.0 is completely updated to clarify definitions and add Table 2 "Zero time Since New" Inspection Requirements</li> </ul>	04/17/2017		
В	All	<ul> <li>Corrected FAA Project No. to ST06168WI-A</li> <li>The following changes are made per AEG email dated 06-16-17:</li> <li>1) "&amp; Overhaul Schedule" is removed from Section 2.0 Heading</li> <li>2) "As New" condition is defined on Page 9</li> <li>3) The qualifier " depending on time of discovery" is removed from the first sentence on Page 10</li> <li>4) The first sentence of Section 10.0 and the "Airworthiness Limitations – Log of Revisions" table contained in Section 10.0 are removed</li> </ul>	07/21/2017		



## List of Effective Pages

Page Date		Rev.
1	07/21/2017	В
2	07/21/2017	В
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Abbreviations & Definitions			
Abbreviation	Definition		
ASIC	Aircraft Structures International Corp.		
СММ	Cessna Maintenance Manual		
DVI Detailed Visual Inspection			
FAA	Federal Aviation Administration		
HFEC	High Frequency Eddy Current		
ICA Instructions for Continued Airworthiness			
MDL	Master Data List		
NDI	NDI Nondestructive Inspection		
SID	Supplemental Inspection Document		
SRM	Structural Repair Manual		
STC	STC Supplemental Type Certificate		

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## 1.0 INTRODUCTION

The purpose of this Instructions for Continued Airworthiness (ICA) document is to provide the maintenance technician with the information necessary to ensure the continued airworthiness of the Supplemental Structural Inspection Program, marketed as Phoenix Group 1, per Aircraft Structures International Corp. Master Data List (MDL) 11534000-300 Rev B or later FAA approved revision in Textron Aviation Inc. 208 and 208B aircraft.

The Textron Aviation Inc. 208 and 208B aircraft is certified to the applicable FAA requirements of 14 CFR Part 23 as specified in Type Certificate Data Sheet A37CE. This type certificate was transferred from the Cessna Aircraft Company to Textron Aviation Inc. on July 29, 2015. Therefore this document will use references to the Textron Aviation Inc. 208 and 208B aircraft and the Cessna 208 and 208B aircraft interchangeably.

Modifications to an aircraft obligates the operator to include the maintenance information provided by this document into the operators aircraft Maintenance Manual and operator's aircraft scheduled maintenance program. This document defines supplementary maintenance operations and frequencies recommended by Aircraft Structures International Corp. (ASIC), to ensure the aircraft's airworthiness.

The information contained herein addresses the requirements specified in 14 CFR 23.1529, ICA and supplements the basic aircraft maintenance manual only in those areas listed as pertains to this modification as installed per the ASIC MDL 11534000-300. For limitations and procedures not contained in this supplement, consult the basic aircraft maintenance manual.

#### Data

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

ASIC Supplemental Type Certificate (STC) MDL 11534000-300 Rev B or later FAA approved revision.

For all aircraft, including those modified by the STC replacement fittings, the following Cessna Maintenance Manual (CMM) 5-13-00 Supplemental Inspection Document statement applies:

The Supplemental Structural Inspection Program is valid for airplanes with less than 50,000 hours. Beyond this the continued airworthiness of the airplane can no longer be assured. Retirement of the airframe is recommended when 50,000 flight hours have been accumulated.

This STC does not in any way supersede or substantiate any deviation from this CMM 5-13-00 requirement. Therefore the airworthiness of all aircraft modified by this STC will remain limited to 50,000 flight hours, as prescribed above.

The document no. 11534000-001 Modification Procedure using STC replacement fittings, conducted on Cessna 208 and 208B aircraft, provides instructions for the replacement of specified fuselage fittings for the strut, main landing gear and wing with new Cessna Original Equipment Manufacturer (OEM) fittings as well as the replacement of supporting frame splices and stiffeners. Also inboard, center and outboard wing flap track fittings will be replaced with new OEM flap track fittings.

The modification procedure with the replacement fittings resets the inspection requirements to "**Zero Time Since New**" for the replacement fittings, and their supporting structure, on Cessna 208 S/Ns 20800001 and on, and 208B S/Ns 208B0001 and on. Resetting inspection requirements to "Zero Time Since New" means to consider those applicable components as having no fatigue damage and setting the next inspection interval equal to the initial inspection interval. All subsequent inspections of the modified structure will be set forth in Table 2 of Section 2.0.

#### Design Change Control

All data and changes to the parts and assemblies will be tracked per MDL 11534000-300 Rev B or later FAA approved revision.

The 11534000-300 MDL applies to all the following new OEM parts and assemblies on the Cessna 208 and 208B aircraft.



# Applicable Aircraft / Parts Part Number/Serial Number Effectivity

Part	P/N	S/N	Description
Fuselage	N/A	S/N 20800001 & on	Fuselage
	N/A	S/N 208B0001 & on	Fuselage
Wing Assy	2622000-1	S/N 20800001 thru 20800112	Wing Assy-LH
	2622000-2	S/N 20800001 thru 20800112	Wing Assy-RH
	2622000-101	S/N 20800113 thru 20800237	Wing Assy-LH
		S/N 208B0001 thru 208B0399	
	2622000-102	S/N 20800113 thru 20800237	Wing Assy-RH
		S/N 208B0001 thru 208B0399	
	2622000-119	S/N 20800238 thru 20800395	Wing Assy-LH
		S/N 208B0400 & on	
	2622000-120	S/N 20800238 thru 20800395	Wing Assy-RH
		S/N 208B0400 & on	
	2622000-123	S/N 20800396 & on	Wing Assy-LH
	2622000-124	S/N 20800396 & on	Wing Assy-RH

#### **Fuselage Parts** CESSNA D/N

2622075-2

2622075-3

2622075-4 2622075-5

2622075-6

2622275-1

CESSNA P/N	Description	Position
2611113-5	Fitting-Strut Attach	LH FWD, RH Aft
2611113-6	Fitting-Strut Attach	LH Aft, RH FWD
2611011-21	Stiffener	LWR LH FWD, RH AFT
2611011-22	Stiffener	LWR RH FWD, LH AFT
2611137-9	Fitting Assy-Main Gear	LH Aft, RH FWD
2611137-10	Fitting Assy-Main Gear	LH FWD, RH Aft
2611118-23	Splice	LH FWD
2611118-24	Splice	RH FWD
2611118-25	Splice	LH AFT
2611118-26	Splice	RH AFT
2611139-1	Fitting-Aft Wing Attach	LH Aft, RH FWD
2611139-2	Fitting-Aft Wing Attach	LH FWD, RH Aft
2611118-7	Splice UPPER	LH FWD
2611118-8	Splice UPPER	RH FWD
2611118-9	Splice UPPER	LH AFT
2611118-10	Splice UPPER	RH AFT
2611166-1	Fitting Assy-Main Gear	LH Aft, RH FWD
2611166-2	Fitting Assy-Main Gear	LH FWD, RH Aft
2613216-1	Fitting-FWD Wing Attach	LH Aft, RH FWD
2613216-2	Fitting-FWD Wing Attach	LH FWD, RH Aft
2611011-37	Splice	UPPER FWD LH
2611011-59	Splice	UPPER FWD LH
2611011-60	Splice	UPPER FWD RH
2611011-11	Splice Station 168.70 (208) 188.70 (208B)	UPPER AFT LH
2611011-12	Splice Station 168.70 (208) 188.70 (208B)	UPPER AFT RH
2611011-51	Splice	UPPER FWD LH
2611011-52	Splice	UPPER FWD RH
Wing Parts		
CESSNA P/N	Description	Position
2622075-1	Flap Track-Inboard	LH, RH

	,
Flap Track-Center	LH, RH
Flap Track-Outboard	LH, RH
Flap Track-Inboard	LH, RH
Flap Track-Center	LH, RH
Flap Track-Outboard	LH, RH
Flap Track-Center	LH, RH
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Aircraft Structures International Corp. Instruction for Continued Airworthiness



## 2.0 INSPECTION REQUIREMENTS

This alteration does change the aircraft manufacturer's maintenance and inspection schedule. The inspections in Appendix B of document no. 11534000-001 Modification Procedure shall be carried out as part of the STC installation, without regard to the airplane's place in the inspection schedule at the time of the alteration. The inspections will include High Frequency Eddy Current (HFEC) Inspections that will be conducted on the mating aircraft structure that supports the fittings. The HFEC inspections shall be completed in accordance with the techniques described in ASIC drawing no. 11532000-001. Also part of the inspections will be Detailed Visual Inspections (DVI) on the general condition of the existing structure's mating surfaces, stiffeners, splice joints, brackets, spar webs, etc. Any sign of corrosion, cracking, or wear of the protective finishes shall be addressed per the ICA.

#### **INSPECTION REQUIREMENTS:**

The OEM fittings' and their supporting structure's inspection requirements are documented in the CMM 5-14-00 Listing of Supplemental Inspections. Table 1 provides a summary of the applicable data from CMM 5-14-00, as well as inspection intervals detailed in the supplemental inspection documents (SID) listed in column five. The SID's listed in column five are detailed in the CMM 5-10-00. The current inspections require a Nondestructive Inspection (NDI) using HFEC surface probes. The Supplemental Inspection Number listed column two correlates to the appropriate document number in Part 6 'Eddy current' of the Nondestructive Testing Manual that details the eddy current inspections. Column four lists the inspection task number.

(1) Aircraft Structure Affected	(2) Supplemental Inspection No.	(3) Inspection Compliance Title	(4) MM Inspection Task	(5) Inspection Document	(6) Initial Inspection (Recurring Inspection)
2611113-5/-6 Fitting-Strut Attach and Supporting Structure	53-20-03	Lower Forward Carry- Thru Bulkhead Special Detailed Inspection	53-10-00-253	05-15-16	12,500 Hrs (2,500 Hrs)
2611137-9/-10 & 2611166- 1/-2 Fitting Assy-Main Gear	53-20-04	Main Landing Gear Fitting Special Detailed Inspection	53-10-00-254	05-15-19	25,000 Landing <i>(5,000 Landing)</i>
2611137-9/-10 & 2611166- 1/-2 Fitting Assy-Main Gear and Supporting Structure	53-20-05	Main Landing Gear Attach Fittings and Aft Carry-Thru Bulkhead Special Detailed Inspection	53-10-00-255	05-15-16	12,500 Hrs (2,500 Hrs)
2611139-1/-2 Fitting-Aft Wing Attach & 2613216-1/- 2 Fitting-FWD Wing Attach and Supporting Structure	53-20-06	Fuselage to Wing Carry-Thru Attach Fitting and Bulkhead Special Detailed Inspection	53-10-00-256	05-15-16	12,500 Hrs (2,500 Hrs)
2622075-1/-4 Flap Track Inboard and 2622075-2/-5 & 2622275-1 Flap Track- Center	57-50-01	Center Flap Track and Inboard Flap Track Special Detailed Inspection	57-10-00-254	05-15-MD	15,000 Landings <i>(3,000</i> <i>Landings)</i>
2622075-3/-6 Flap Track Outboard	57-50-01	Outboard Flap Track Special Detailed Inspection	57-10-00-255	05-15-MD	15,000 Landings (3,000 Landings)

## Table 1 – OEM Supplemental Inspection Requirements



The "Zero Time Since New" Inspection Requirements for replacement fittings, and their supporting structure, on Cessna 208 S/Ns 20800001 and on, and 208B S/Ns 208B0001 and on, reset the inspection requirements presented in Table 1. Hence the next inspection interval, after the replacement of fittings, splices, and stiffeners per document no. 11534000-001 Modification Procedure, equal the initial inspection interval. All subsequent inspections equal the recurring inspections presented in Table 1. In addition to the inspection requirements presented in Table 1, the bolt and rivet holes in the mating aircraft structure that supports the fittings, which are not replaced by this STC, undergo HFEC surface probe. Finally, all fittings, stiffeners, splice joints, and brackets replaced by this STC will undergo Detailed Visual Inspections (DVI) on their general condition.

Table 2 – "Zero	Time Since	New" Ins	spection R	Requirements
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(1) Aircraft Structure Affected	(2) Supplemental Inspection No.	(3) Inspection Compliance Title	(4) MM Inspection Task	(5) Inspection Document	(6) Initial Inspection (Recurring Inspection)
2611113-5/-6 Fitting-Strut Attach and Supporting Structure	53-20-03	Lower Forward Carry-Thru Bulkhead Special Detailed Inspection	53-10-00-253	05-15-16	12,500 Hrs (2,500 Hrs)
2611137-9/-10 & 2611166-1/-2 Fitting Assy-Main Gear	53-20-04	Main Landing Gear Fitting Special Detailed Inspection	53-10-00-254	05-15-19	25,000 Landing <i>(5,000 Landing)</i>
2611137-9/-10 & 2611166-1/-2 Fitting Assy-Main Gear and Supporting Structure	53-20-05	Main Landing Gear Attach Fittings and Aft Carry-Thru Bulkhead Special Detailed Inspection	53-10-00-255	05-15-16	12,500 Hrs (2,500 Hrs)
2611139-1/-2 Fitting-Aft Wing Attach & 2613216- 1/-2 Fitting-FWD Wing Attach and Supporting Structure	53-20-06	Fuselage to Wing Carry-Thru Attach Fitting and Bulkhead Special Detailed Inspection	53-10-00-256	05-15-16	12,500 Hrs (2,500 Hrs)
2622075-1/-4 Flap Track Inboard and 2622075-2/-5 & 2622275-1 Flap Track-Center	57-50-01	Center Flap Track and Inboard Flap Track Special Detailed Inspection	57-10-00-254	05-15-MD	15,000 Landings (3,000 Landings)
2622075-3/-6 Flap Track Outboard	57-50-01	Outboard Flap Track Special Detailed Inspection	57-10-00-255	05-15-MD	15,000 Landings <i>(3,000</i> Landings)



#### Table 2 – "Zero Time Since New" Inspection Requirements – cont.

Additional Inspection Requ	irements		
(1) Aircraft Structure Affected	(2) Inspection Method	(3) Initial Inspection (Recurring Inspection)	
Bolt holes in the mating aircraft structure that supports:			
2611113-5/-6 Fitting-Strut Attach 2611137-9/-10 & 2611166-1/-2 Fitting Assy-Main Gear 2611139-1/-2 Fitting-Aft Wing Attach 2613216-1/-2 Fitting-FWD Wing Attach	HFEC Surface Inspection	12,500 Hrs (12,500 Hrs)	
Rivet holes in the mating aircraft structure that supports:			
2611113-5/-6 Fitting-Strut Attach 2611137-9/-10 & 2611166-1/-2 Fitting Assy-Main Gear 2611139-1/-2 Fitting-Aft Wing Attach 2613216-1/-2 Fitting-FWD Wing Attach	HFEC Surface Inspection	12,500 Hrs (12,500 Hrs)	
Rivet holes in the mating aircraft structure that supports: 2622075-1/-4 Flap Track Inboard 2622075-2/-5 & 2622275-1 Flap Track-Center 2622075-3/-6 Flap Track Outboard	HFEC Surface Inspection	15,000 Landings (15,000 Landings)	
All the following components that are replaced by this STC: 2611113-5/-6 Fitting-Strut Attach 2611137-9/-10 & 2611166-1/-2 Fitting Assy-Main Gear 2611139-1/-2 Fitting-Aft Wing Attach 2613216-1/-2 Fitting-FWD Wing Attach 2613216-1/-2 Fitting-FWD Wing Attach 2611011-21/-22 Stiffener 2611118-23/-24 Splice 2611118-25/-26 Splice 2611118-48/-49 Stiffener 2611118-50/-51 Stiffener 2611118-7/-8 Splice 2611118-9/-10 Splice 2611011-37 Splice 2611011-59/-60 Splice 2611011-11/-12 Splice Station 168.7(208)/188.7(208B) 2611011-51/-52 Splice	DVI	12,500 Hrs <i>(N/A)</i>	

NOTE: Any component replaced by this STC is exempt from the supplemental inspection requirements shown in Table 2 at the time of replacement. All HFEC surface probe inspections conducted as part of the additional inspection requirements, at the time of fitting replacement per this STC, serve to comply with the HFEC surface inspections prescribed by the supplemental inspection requirements.

The bolt hole HFEC surface inspections are of particular interest since the bolt patterns provide the stiffest load path between the fittings and their supporting structure. Therefore results of the bolt hole HFEC surface inspections for the existing structure will be recorded 'PASS' for as new condition or will be recorded as 'FAIL' for damaged structure by forms found in Appendix B of the document no. 11534000-001 Modification Procedure for each aircraft altered by this STC. The "As New" condition is defined in Appendix B of the document no. 11534000-001 Modification Procedure as a structure with no detected defects. The inspection results will be internally archived by ASIC, when the inspection findings are not of a serious nature. All other inspection results will follow the damage reporting instructions specified in the next sub-section.



#### DAMAGE REPORTING:

If damage to any component is found during inspection, the damaged component will be documented and reported to Cessna in accordance with CMM 5-13-00 Supplemental Inspection Document (SID) and to the FAA in accordance with 14 CFR Part 145.221 or 14 CFR Part 21.3. The following actions, based on the existing structure inspection results, shall be taken:

A) No damage is found in existing structure:

The existing structure is in "As New" condition that allows for installation of STC replacement fittings and follows the inspection requirements and intervals presented in Table 2.

B) Damage is found in existing structure:

Option 1) The existing structure is repaired per Cessna 208/208B SRM.

- a. Inspection requirements and intervals defined in document no. 11534000-600 ICA are non-applicable.
- b. Continue OEM inspection requirements and intervals.

Option 2) The existing structure is replaced per Cessna 208/208B MM, SRM, and AC 43.13-1B.

- a. The replaced structure is now in 'As New' condition.
- b. Installation of STC replacement fittings is allowed.
- c. Inspection requirements and intervals defined in document no. 11534000-600 ICA are applicable.



# PHOENIX GROUP 1 TRACKING LOG

PART NUMBER:					
DATE	TIME / CYCLES	SIGNATURE			

If at any time during service, a failure, malfunction, or defect is found to have occurred in any article that was installed or modified by the alteration, as well as the existing aircraft structure supporting these articles, it shall be reported by ASIC to the Wichita ACO within 24 hours of discovery. The description and reporting of such "defects" shall be accomplished in accordance with 14 CFR Part 21.3 using an FAA form 8010-4 and the procedure for identification and reporting that are defined in document no. 11534000-600 ICA.



#### FAA FORM 8010-4

					08/31/20
DEPARTMENT OF	TRANSPORTATION	OPER. Control No.		8. Comments (Describe the malfunction or defect and the circumstances under which it	TOR
FEDERAL AVIATION ADMINISTRATION		ATA Code		occurren. State probable cause and recommendations to prevent recurrence.)	OFFK OFFK PERAT
		T <sup>1.</sup> A/C Reg. No.	N-	1	а Во
Enter pertinent data	MANUFACTURER	MODEL/SERIES	SERIAL NUMBER	1	OTHE
AIRCRAFT					ш.
		-		-	NWWO
POWERPLANT					0
PROPELLER					2
SPECIFIC PART (of	component) CAUSING TF	IOUBLE		-	2
Part Name	MFG. Model or Part No	. Serial No.	Part/Defect Location.		-
					RTAX
APPLIANCE/COMPC	NENT (Assembly that Inc	ludes part)		-	н. –
Comp/Appl Name	Manufacturer	Model or Part No.	Serial Number		MEO
				Optional Information:	œ
Part TT	Part TSO	Part Condition	7. Date Sub.	Check a box below, if this report is related to an alreraft	- OP
			1	Accident: Date Discident: Date	BMITT
					REF
	Ċ				

Aircraft Structures International Corp. Instruction for Continued Airworthiness



## 3.0 DIMENSION & ACCESS

This modification procedure does not change the dimensions of the aircraft.

## 4.0 LIFTING & SHORING

No change

## 5.0 LEVELING & WEIGHING

No change

## 6.0 TOWING & TAXIING

No change

## 7.0 PARKING & MOORING

No change

## 8.0 PLACARDS & MARKINGS

No change

## 9.0 SERVICE INFORMATION

No change

## **10.0 AIRWORTHINESS LIMITATIONS**

For limitations and procedures not contained in this supplement, consult the basic Maintenance Manuals. 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.

#### **AIRWORTHINESS LIMITATIONS**

There are no Airworthiness Limitations associated with the installation.

#### **Distribution:**

Per the requirement of 14 CFR Part 23.1529, the changes made to the ICA by the applicant will be distributed via mail by means of paper copy.

Aircraft Structures International Corp. Instruction for Continued Airworthiness



## **APPENDIX A – INSTALLATION FIGURES**



Figure A-1



B

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Figure A-3



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**APPENDIX A (Cont.)** 



Figure A-5







A



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