

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

For

Auxiliary Seat

Document No.: AF-457

Revision "A"

Revision Date: 11/15/12

Applicable to:

Cessna

**150D, 150E, 150F, 150G, 150H, 150J, 150K, 150L, 150M,
A150K, A150L, A150M, 152, A152,
F150G, F150H, F150J, F150K, F150L, F150M,
FA150K, FA150L, FRA150L, FRA150M, F152, FA152**

Modified by FAA STC's:

SA2582CE & SA2583CE

The information in the 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 150 & 152 Series 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 airplane data.

REVISION PAGE

Document Title: Instructions for Continued Airworthiness

Prepared By: Todd Pogue

Updates to the ICA will be made by Aviation Fabricators Inc. Updates will be listed in the log of revisions and the effective pages will be listed below.

Log of Revisions				
REV. NO.	EFFECTED PAGE(S)	DESCRIPTION	DATE	APPROVED BY
A	All	*Complete update of ICA to latest format	11/15/12	Jeffrey R. Lowe

Per the requirement of Appendix G of 14 CFR Part 23 paragraph G23.1 (c), the changes made to the ICA by the applicant will be distributed via mail by means of paper copy.

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ABBREVIATIONS AND DEFINITIONS

Abbreviations	Definitions
AML	FAA Approved Model List (AML)
Detailed Inspection (DET)	An intensive examination of a specific item, installation or assembly to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses, etc. may be necessary. Surface cleaning and elaborate access procedures may be required.
FAA	Federal Aviation Administration
FAA MIDO	FAA Manufacturing Inspection District Office
General Visual Inspection (GVI)	A visual examination of an interior or exterior area, installation or assembly to detect obvious damage, failure or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight or droplight and may require removal or opening of access panels or doors. Stands, ladders or platforms may be required to gain proximity to the area being checked.
ICA	Instructions for Continued Airworthiness
Special Detailed Inspection (SDI)	An intensive examination of a specific item, installation , or assembly to detect damage, failure or irregularity. The examination is likely to make extensive use of specialized Inspection Techniques and/or equipment. Intricate cleaning and substantial access or disassembly procedure may be required.
STC	Supplemental Type Certificate

1.0 INTRODUCTION

The purpose of this Maintenance Manual Supplement and Instructions for Continued Airworthiness (ICA) is to provide the maintenance technician with the information necessary to ensure the continued airworthiness of the Aviation Fabricators auxiliary seat installation, per installation number 41-0116K when installed in accordance with Aviation Fabricators design data included on STC Drawing List AF-117 per Supplement Type Certificates (STC's) SA2582CE and SA2583CE.

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 Aviation Fabricators Inc., to ensure the aircraft's airworthiness.

The information contained herein addresses the requirements specified in 14 CFR 23.1529, Instructions for Continues Airworthiness and supplements the basic Airplane Maintenance Manual only in those areas listed as pertains to the installation of the stretchers, as installed per the Aviation Fabricators STC Drawing List AF-117. For limitations and procedures not contained in this supplement, consult the Airplane Maintenance Manual.

DATA

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

STC's SA2582CE and SA2583CE
STC Drawing List: AF-117

Installation: STC Drawing List: AF-117
Document AF-106 for 150 Series
Document AF-537 for 152 Series

Parts: Refer to p/n 41-0116 and respective drawings as listed on STC Drawing List AF-117.

The auxiliary seat is a made up of a seat back assembly and a seat bottom assembly. The seat back assembly is screwed to the existing aircraft panels. The seat bottom assembly is attached to brackets that are mounted to the existing floor panel. The seat belts are attached to lugs that are attached to the aircraft bulkhead frame.

Design Change Control

All data and changes to the parts and assemblies will be tracked per STC Drawing List AF-117 latest approved revisions.

Applicable Aircraft

Cessna 150D, 150E, 150F, 150G, 150H, 150J, 150K, 150L, 150M, A150K, A150L, A150M, 152, A152, F150G, F150H, F150J, F150K, F150L, F150M, FA150K, FA150L, FRA150L, FRA150M, F152, FA152

Auxiliary Seat Assembly

P/N 41-0116K

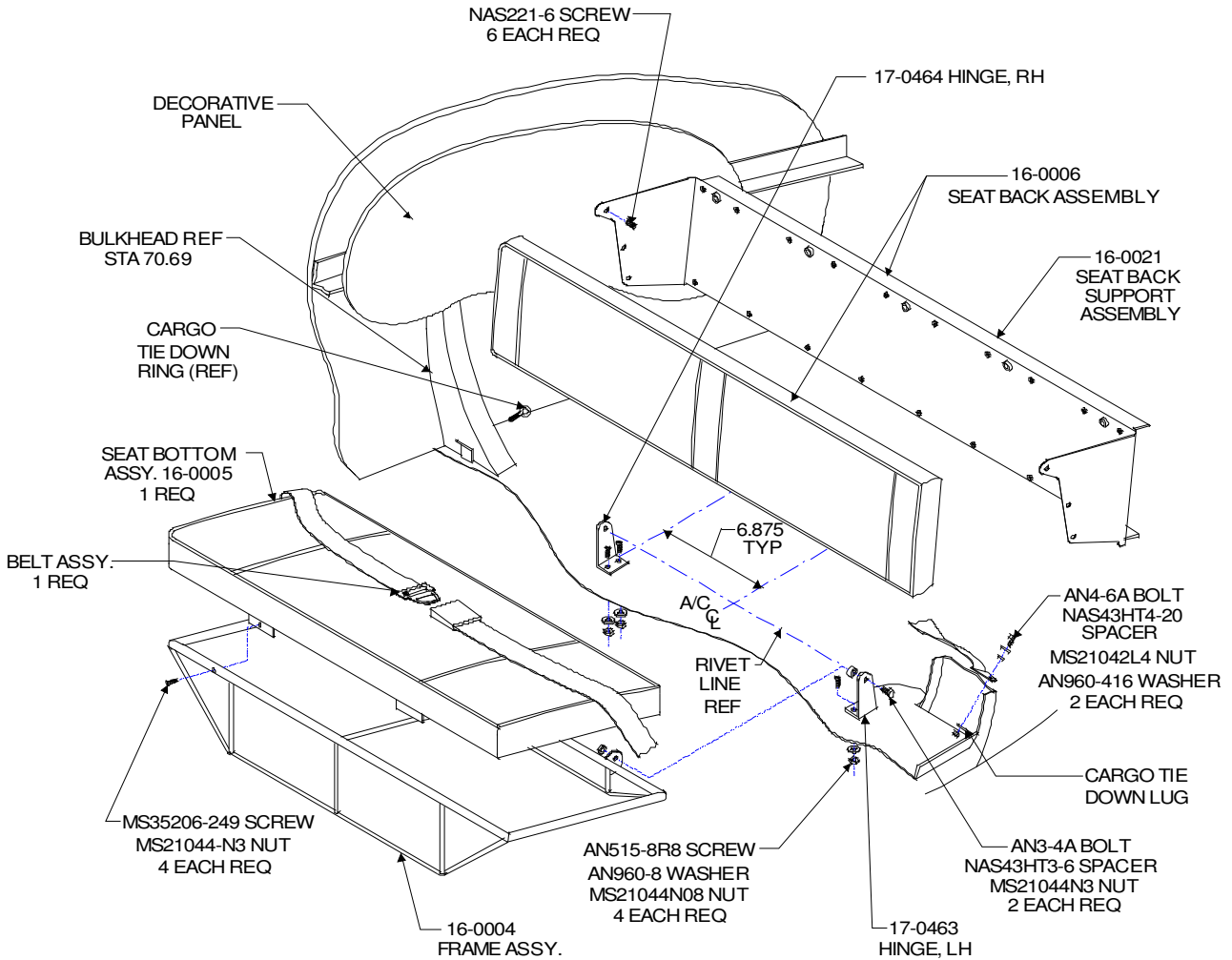


Figure 1.0A

Lug Installation (152 Series)

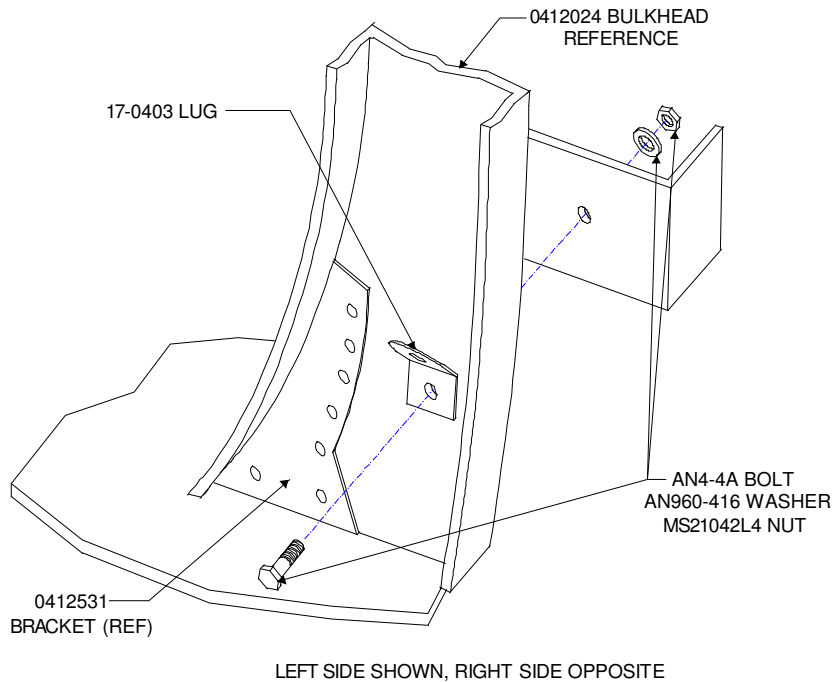


Figure 1.0B

2.0 INSPECTION REQUIREMENTS AND OVERHAUL SCHEDULE

1. To comply with 14 CFR 23.1529, continue the new auxiliary seat and restraint system on the same inspection and maintenance schedule used per the applicable Cessna Maintenance Manual for seats.
 - a. The new auxiliary seat and restraint systems require no service other than inspection at normal inspection interval of 100 hours or annually.
 - b. Perform a detailed visual inspection of the auxiliary seat bottom and back covering to detect apparent or obvious defects or irregularities.

On the seat cushions, check for cracks and punctures within a 4" diameter circle. The cushions can have no more than three defects found within the 4" diameter circle. If it develops a "lump", check to see if there are no more than two lumps within a 4" diameter circle. Any damage to the cushion assemblies outside of the described limits will require it to be replaced.

Visually inspect the cushion covers for holes, punctures, and tears. If the damage to the covers is holes smaller than 1/2" in diameter or a cut at a

maximum of 2” in length then the covering is satisfactory. The sewing of the cover assemblies cannot have a tear or cut exceeding 1” in length. Any damage to the cover assemblies outside of the described limits will require it to be replaced.

- c. Visually inspect the auxiliary seat frame tubing and diaphragm for cracks and deformation. Damaged conditions can be detected as a crack at the edge of the tube or along the length of the tubes or as a crack, tear or cut found on the seat bottom diaphragm. Visually inspect all hardware for excessive wear before and after installation.

There shall be no broken tubes. There shall be no sharp corners, edges, or protrusions that may injure passengers. Replace the tubes if they are bent in such a way that they are more than 1/2” off center. Replace the auxiliary seat frame tubes if crack length is found to be .125” or greater. Replace the tube if a dent is found running longer than 3”. Replace the frame tubes if deformation is greater than .25” the overall thickness of the tube diameter.

- d. Visually inspect the seat belt webbing for any fraying, cuts, wear, damage, or deterioration. There can be no webbing material removed in any way for the belt to be found acceptable. If the belt is found to be unacceptable send it to a certified repair station to be rewedded.

Cracked or broken fasteners or fittings are to be replaced with new immediately.

For repair or replacement of damaged or broken parts or assemblies contact Aviation Fabricators Inc.

2. Inspection Time Limit for Auxiliary Seat Installations:

100 hour or annual inspection for the stretcher and restraint systems

Task Code			Schedule	Date	Mech	Insp
AFI-100	a.	Inspect for damage to upholstery.				
AFI-101	b.	Inspect safety belts for wear, cuts, fraying, damage, and deterioration.				
AFI-102	c.	Inspect safety belt attachment fittings for wear and damage				

AFI-103	d.	Inspect seat floor attachment for damage, security, and function.				
AFI-104	e.	Inspect seat frame for damage, and corrosion.				
AFI-105	f.	Inspect overall auxiliary seat assembly for fit and function.				

A. The new auxiliary seat and restraint system are on the same inspection and maintenance schedule used per the applicable Cessna Maintenance Manual for passenger seats.

3.0 DIMENSION AND ACCESS:

The installation of the auxiliary seat assembly does not change the dimensions of the aircraft or alter the access to any existing aircraft system.

4.0 LIFTING AND SHORING

No change.

5.0 LEVELING AND WEIGHING

Upholstered Seat Bottom Frame Assembly = 5.0
 Upholstered Seat Back Assembly with
 Seat belt and installation hardware = 6.0

6.0 TOWING AND TAXIING

No change.

7.0 PARKING AND MOORING

No change.

8.0 PLACARDS AND MARKINGS

No change.

9.0 SERVICE INFORMATION

Typical Auxiliary Seat Service Instructions:

A. Upholstery Cleaning:

Seat Service Instructions

1. Remove the seat back cushion from the back frame assembly.
2. Clean the seat back and bottom cushion covers with Armour All leather cleaner or equivalent.
3. Clean and inspect restraint system for damage or excessive wear.
4. Inspect all attachment fittings and replace if necessary.
5. Inspect overall auxiliary seat for fit and function.

Typical Seat Service Instructions:

Auxiliary Seat Assembly

The auxiliary seat is made up of a seat back assembly and a seat bottom assembly. The seat back assembly is screwed to the existing aircraft panels. The seat bottom assembly is attached to brackets that are mounted to the existing floor panel. The seat belts are attached to lugs that are attached to the aircraft bulkhead frame.

To remove the auxiliary seat from the aircraft remove the six screws holding the seat back assembly to the aircraft panels and remove the bolt, nut, and spacer from the floor mounting brackets to remove the seat bottom assembly.

To install the auxiliary seat into the aircraft install six screws to holding the seat back assembly to the aircraft panels and install a bolt, nut, and spacer through the floor mounting brackets and the seat bottom assembly.

Refer to Figure 1.0A.

Cushions

The seat back cushion is removed by unsnapping it from the backrest support assembly. The seat bottom assembly is attached to the seat bottom frame assembly.

Seat Belt and Shoulder Harness

Seat belt and Shoulder Harness removal is accomplished by removing bolts spacers, nuts, and washers from lugs attached to the aircraft bulkhead frames on each side of the aircraft. Refer to Figures 1.0A for 150 series and 1.0B for 152 series.

B. RECOMMENDED OVERHAUL PERIODS

No additional overhaul time limitations and requirements apply to the Aviation Fabricators Stretcher Assemblies.

10.0 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.

There are no Airworthiness Limitations to the aircraft with the addition of the auxiliary seat installed by this STC.

11.0 TROUBLESHOOTING

Refer to the existing Aircraft Maintenance Manual for troubleshooting the auxiliary seat installation that is required beyond the information found on the installation documents AF-106 or AF-537.

For replacement parts or repair of damage parts:

Contact Aviation Fabricators at (660) 885-8317.

Troubleshooting this installation should only be accomplished by FAA approved repair stations with the appropriate ratings or appropriately rated operator/individuals, with required test equipment and service data.