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INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

For

Stretcher Kit Installation

Document No.: AF-511

Revision "IR"

Revision Date: 10/17/13

Applicable to:

Cessna 501 & 551 Series Aircraft

Modified by FAA STC SA126RM

The information in the Instruction for Continued Airworthiness is FAA accepted material and complies with 14CFR 23.1529, Instructions for Continued Airworthiness. It supersedes or adds to that provided in the Maintenance Manual for the Cessna 501 and 551 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

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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
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Distribution:

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.

TABLE OF CONTENTS

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS	1
REVISION PAGE	2
TABLE OF CONTENTS	3
1.0 INTRODUCTION	5
2.0 INSPECTION REQUIREMENTS AND OVERHAUL SCHEDULE	10
3.0 DIMENSION AND ACCESS	11
4.0 LIFTING AND SHORING	11
5.0 LEVELING AND WEIGHING	12
6.0 TOWING AND TAXIING	12
7.0 PARKING AND MOORING	12
8.0 PLACARDS AND MARKINGS	13
9.0 SERVICE INFORMATION	13
10.0 AIRWORTHINESS LIMITATIONS	15
11.0 TROUBLESHOOTING INFORMATION	15

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 stretcher kit installation, per installation numbers 42-0197K-XX when installed in accordance with Aviation Fabricators design data included on STC Drawing List AF-215 per Supplement Type Certificate (STC) SA126RM.

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 Continued Airworthiness and supplements the basic Airplane Maintenance Manual only in those areas listed as pertains to the installation of the stretcher kit installation, as installed per the Aviation Fabricators STC Drawing List AF-215. 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 SA126RM
STC Drawing List: AF-215

Installation: STC Drawing List: AF-215
Drawing: D-10149

Parts: Refer to part numbers 42-0197K-1, 42-0197K-11, 42-0197K-21, 42-0197K-31, 42-0197K-41, 42-0197K-51, 42-0197K-61, 42-0197K-71, 42-0197K-81 and 42-0197K-91 and their respective drawings as listed on STC Drawing List AF-215.

The stretcher kit is a self-contained complete assembly that mounts to the existing cabin seat track, using standard fittings and hardware, in accordance with approved floor plans. The kits have a portable stretcher unit that is removable from the support assembly.

Design Change Control

All data and changes to the parts and assemblies will be tracked per STC Drawing List AF-215 latest approved revisions.

Applicable Aircraft

Cessna 501 -- P/N's 42-0197K-1, 42-0197K-11, 42-0197K-21, 42-0197K-31

Cessna 551 – P/N'S 42-0197K-41, 42-0197K-51, 42-0197K-61, 42-0197K-71,
42-0197K-81, 42-0197K-91

Typical Stretcher Kit Installation

P/N 42-0197K-51 Shown

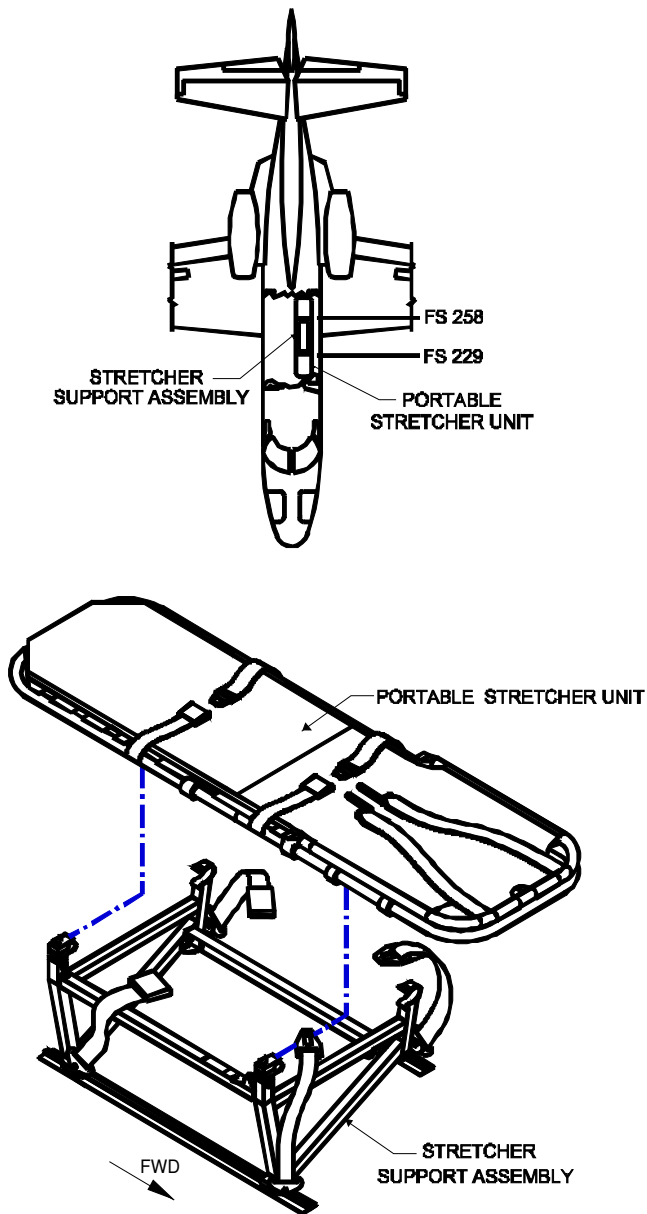


Figure 1.0A

Seat Belt Installation

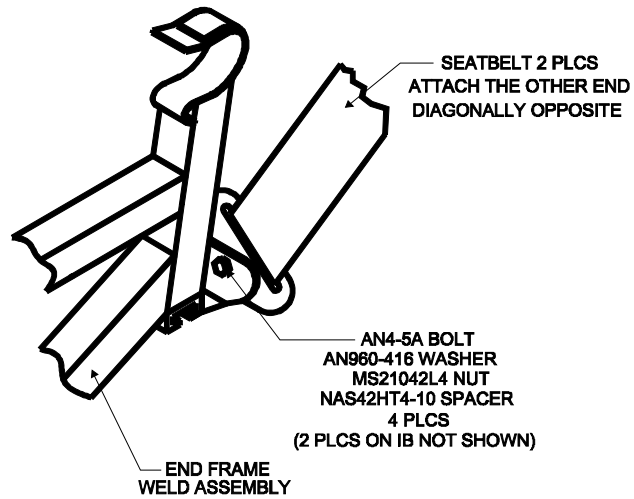


Figure 1.0B

Foot Installation

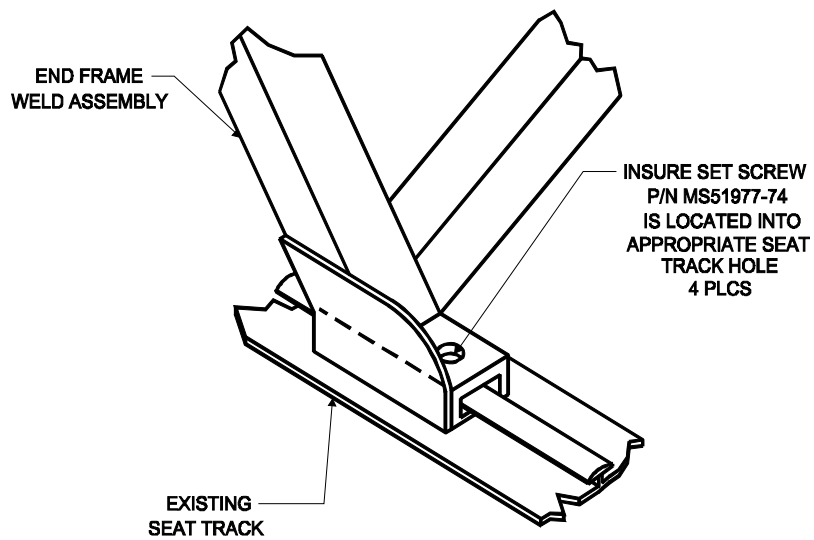


Figure 1.0C

Support Assembly

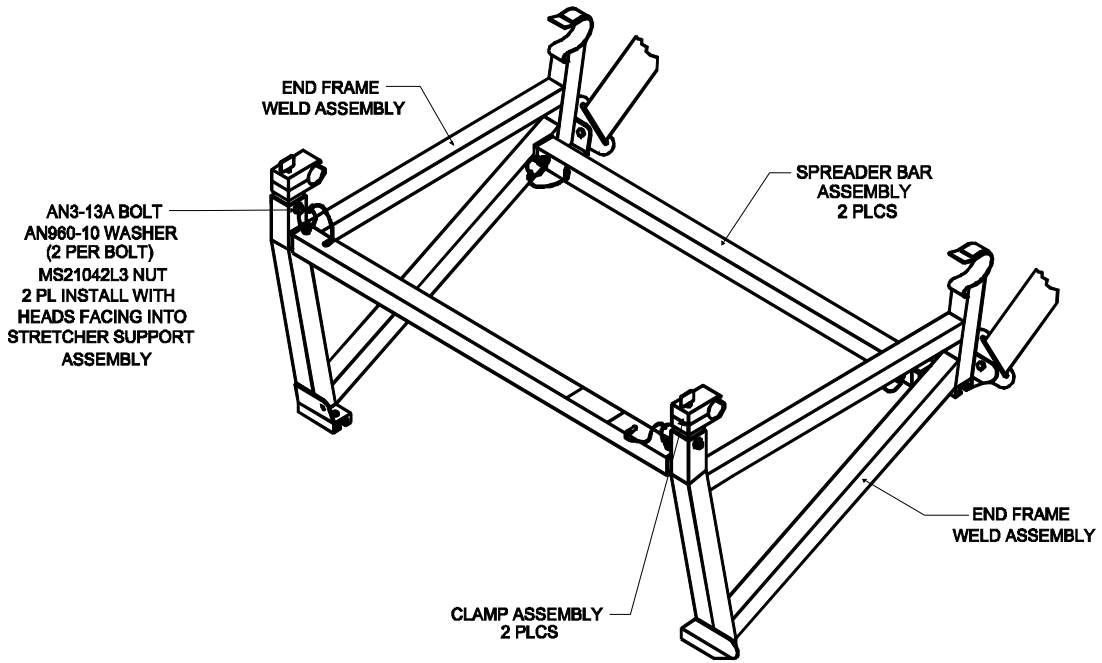


Figure 1.0D

Storage Box Assembly (optional)

P/N 42-0201K

Available on 42-0197K-1, 42-0197K-11, 42-0197K-31, 42-0197K-61, 42-0197K-71 and 42-0197K-91 Kits

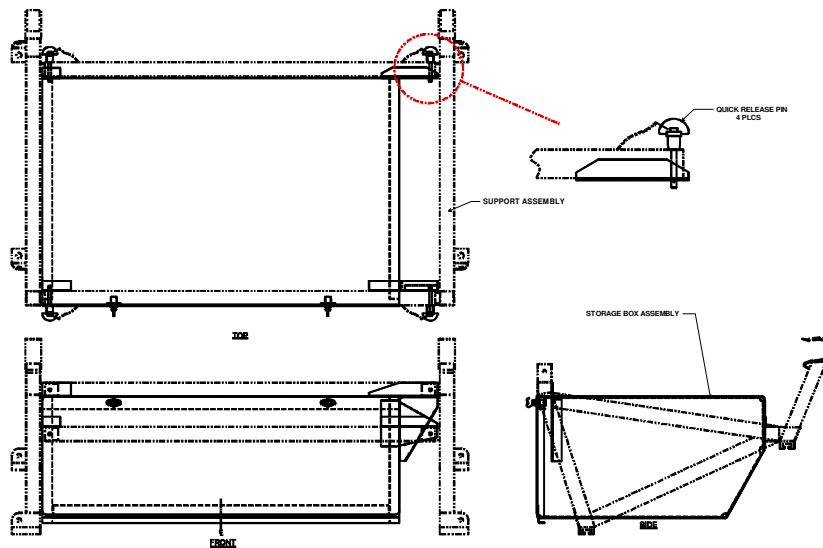


Figure 1.0E

Portable Stretcher Unit

P/N 42-0206-1

Used on 42-0197K-11 and 42-0197K-71 Kits

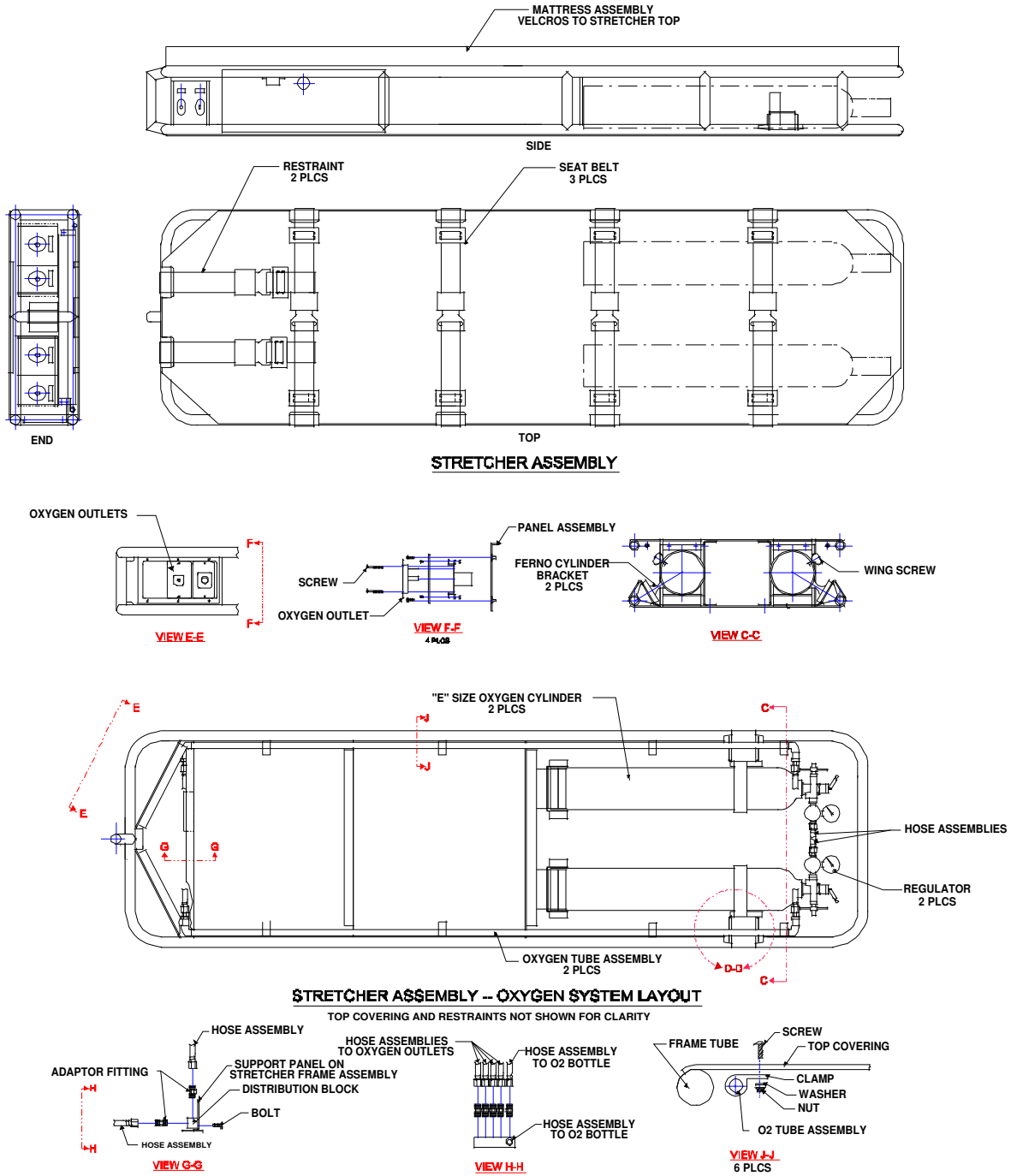


Figure 1.0F

2.0 INSPECTION REQUIREMENTS AND OVERHAUL SCHEDULE

1. To comply with 14 CFR 23.1529, continue the stretcher kit installation and restraint system on the same inspection and maintenance schedule used per the Cessna Maintenance Manual for seats.
2. The new stretcher installation kit and restraint systems require no service other than inspection at normal inspection interval of 100 hours or annually.
3. Perform a detailed visual inspection of the portable stretcher coverings to detect apparent or obvious defects or irregularities.
4. Visually inspect the stretcher support frame assembly tubing 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 2" off center. Replace the frame assembly 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 assembly tubes if deformation is greater than .25" the overall thickness of the tube diameter.

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.

The modified systems require no service other than inspection at normal inspection intervals.

Task Code			Schedule	Date	Mech	Insp
AFI-100	a.	Inspect portable stretcher for damage.				
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 foot fittings for damage, security, and function.				
AFI-104	e.	Inspect stretcher support frame for damage, and corrosion.				
AFI-105	f.	Inspect overall stretcher kit for fit and function.				

3.0 DIMENSION AND ACCESS

The installation of the stretcher kit installation 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

Stretcher Support Assembly = 10.5 lbs
Seat Belts (2) = 1.5 lbs

Ferno Aviation Portable Stretchers:

Model 9 Portable Stretcher w/ Mattress
And Shoulder Harness Restraint = 18 lbs

Model 30 Portable Stretcher = 20 lbs

Model F12-2A Portable Stretcher
w/ Shoulder Harness Restraint = 23 lbs

P/N 42-0206-1 Portable Unit w/ (2) "E" Size
Oxygen Bottles (empty), Restraints,
And Mattress Assembly = 80 lbs

Optional Storage Box P/N 42-201K = 6.5 lbs

6.0 TOWING AND TAXIING

No change.

7.0 PARKING AND MOORING

No change.

8.0 PLACARDS AND MARKINGS

1. Placard p/n 15-0414 is to be located on the forward end of the stretcher support assembly on the top of the inboard tube assembly so that it can be seen when the portable stretcher is installed.

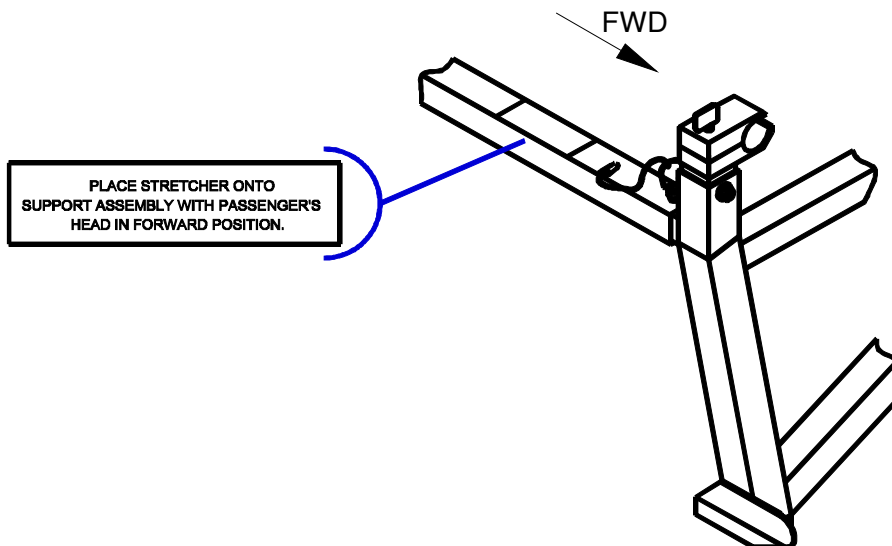


Figure 8.0

9.0 SERVICE INFORMATION

Typical Stretcher Service Instructions:

A. Cleaning:

Stretcher Assembly Service Instructions

1. Remove portable stretcher from stretcher support assembly.
2. Clean the portable stretcher in accordance with instructions issued by the company responsible for it so that knowledge of the upholstery material's fire retardant properties are known and will not be compromised.
3. Clean and inspect restraint system for damage, fraying, cuts or seam deterioration.
4. Inspect all attachment fittings and replace if necessary.
5. Inspect overall stretcher kit for fit and function.

Typical Stretcher Maintenance Instructions:

Stretcher Installation Kit

The stretcher kit is a self-contained complete assembly that mounts to the existing cabin seat track, using standard fittings and hardware, in accordance with approved floor plans. The kits have a portable stretcher unit that is removable from the support assembly. Refer to Figure 1.0A.

Stretcher Support Installation:

The installation of the stretcher support assembly requires (1) sliding the stretcher support frames to the correct location on the existing seat track and (2) tightening the set screw into the existing hole in the seat track. Refer to Figures 1.0C & D.

Stretcher Support Removal:

Removal of the stretcher support assembly requires (1) loosening the set screw in each foot and (2) sliding the stretcher support frames to the end of the seat track.

Portable Stretcher Installation

The portable stretcher is installed on the stretcher support assembly by inserting the outboard side of the portable unit into the support brackets and sitting the inboard side onto the lower part of the clamp assembly. It is then locked into place by tightening the upper part of the clamp assembly onto the portable unit frame with a wing screw assembly. Refer to Figure 1.0A

Portable Stretcher Removal

To remove the portable unit from the stretcher support assembly, loosen the wing screws on the clamp assembly that is attached to the inboard side of the portable stretcher frame. Then lift the portable unit from the support assembly by sliding it inboard slightly to clear the outboard bracket and lifting the unit straight up.

Seat Belts

Seat belt removal is accomplished by removing the bolt, washer, spacer and nut used to attach the belt end fitting to the stretcher support frame assembly. Ref. to Figure 1.0B

Optional Storage Box Removal and Installation

The optional storage box is installed and removed as desired by used the four Quick Release Pins that are used to assembly the Stretcher Support. Ref. to Figure 1.0E

Portable Stretcher w/ E size Oxygen Cylinders

The unit is installed as described above in the "Portable Stretcher Installation" paragraph. The E size Oxygen Cylinders are removed unhooking the hose assemblies and by loosening the Wing Screw in the Ferno Bracket and pulling the cylinder out from the end of the unit. Ref Figure 1.0F

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 stretcher kit installed by this STC.

11.0 TROUBLESHOOTING INFORMATION

Refer to the existing Aircraft Maintenance Manual for troubleshooting the stretcher kit installation that are required beyond the information found on the installation drawing listed below.

D-10149 Stretcher Kit Installation

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.