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Oregon Aero High-G Safety Seats
Instructions for Continued Airworthiness

Make:	**Models:**
Cessna	**LC40-550FG, (300)**
	LC41-550FG, (400)
	LC42-550FG, (350)
	T240

This ICA must be followed when Oregon Aero Seats are installed in accordance with Supplemental Type Certificate (STC) No. SA01597SE. The information contained in this document supplements or supersedes the basic manuals only in those areas listed herein. For limitations, procedures, and performance information not contained in this manual, consult the basic aircraft ICA or maintenance manual.

Document No.: EM-01-01

Rev. F

	Name	Signature	Date
Written	Christi Loya	Christi Loya	9-1-2005
Approved	Donald E. Shepherd, Jr.	Donald E. Shepherd, Jr.	9-1-2005

LIST OF REVISIONS

Rev.	Description	Author	Date	Approved
IR	Initial Release	Christi Loya	9-1-05	DES
A	Updated "No Smoking Escape Hatchet" Placards	Christi Loya	12-02-05	SJH
B	Updated to support Cessna Airplane Company's acquisition of Type Certificate Data Sheet A00003SE	Joel Huck	2-1-08	SJH
C	Updated Section 2, Section 3.1, Section 10, and Section 12 Added Effectivity Section	C. Smith	7-30-10	J. Louie
D	Renumbered all sections Revised Section 1, Section 2, Section 9 and Section 10 Added Section 12	H. Chadha	4-7-11	S. Hooper 4-7-11
E	Formatting changes, added product to document title, moved make and model information to cover and ICA statement, Added T240 Aircraft Model Removed table of figures Revised Sec 1 for T240 Model Revised Placards & labels section to list required labels and remove pictures of labels (there are multiple label versions)	C.Smith 2/28/13	2/28/13	J. Louie
F	Sections 2.1.1 & 2.2.1 added new inspection criteria Section 2.1.2 revised back inspection Section 11 revised, moved requirements to Sections 2.1.1 & 2.2.1 New Figure 4, revised Figure 5 & 13	CSH 2/21/14	2-21-14	JLouie

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Definition of Abbreviations

Abbreviation	Description
DET	Detailed Inspection: 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
GVI	General Visual Inspection: 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
MIDO	FAA Manufacturing Inspection District Office
SDI	Special Detailed Inspection: 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 procedures may be required.

1. Introduction

The information in the Instructions for Continued Airworthiness is FAA approved material and complies with 14 CFR 23.1529, Instructions for Continued Airworthiness. It supersedes or adds to that provided in the Cessna Airplane Company Maintenance Manual only for the items contained herein. For limitations or procedures not contained in this manual, consult the Aircraft Maintenance Manual, or other approved airplane data.

This manual addresses the requirements specified in Federal Aviation Regulation 14 CFR 23.1529, Instructions for Continued Airworthiness. Modifications of an aircraft obligate the operator to follow the maintenance instructions provided by this document. This document describes the maintenance procedures for Oregon Aero 6A-0001 Front Seats and 6A-0009 and 6A-0010 Rear Seat Cushion assemblies that are installed in Model LC40-550FG, LC41-550FG, LC42-550FG and T240 aircraft. Changes to this document are reflected as successive revision levels. New revisions will be transmitted to the designated engineer of Cessna Airplane Company by the designated Oregon Aero representative.

The Oregon Aero seat installation is shown in Figure 1. Each of the Front Seats is installed in the aircraft with two AN4-6A bolts and two MS 27039-4-17 screws, or equivalent. Four bottom cushions, three with different thicknesses, are approved for installation in the Front Seats. These are attached to the diaphragm with VELCRO® brand hook-and-loop fasteners.

The Rear Seat Bottom Cushions are attached to the airframe with a VELCRO® brand hook-and-loop fastener system and the back cushion assemblies are mechanically fastened to the airframe with the same ball-lock pins used in the original installation. In some Models the rear seats may be removed for flight with the use of Cessna cargo provisions – consult the OEM manuals for limitations.

Table 1 presents the Weight & Center of gravity data for the approved installations of the Front Seats & Rear Seats. Figure 2 shows the corresponding center of gravity locations for the Front Seats & Rear Seats.

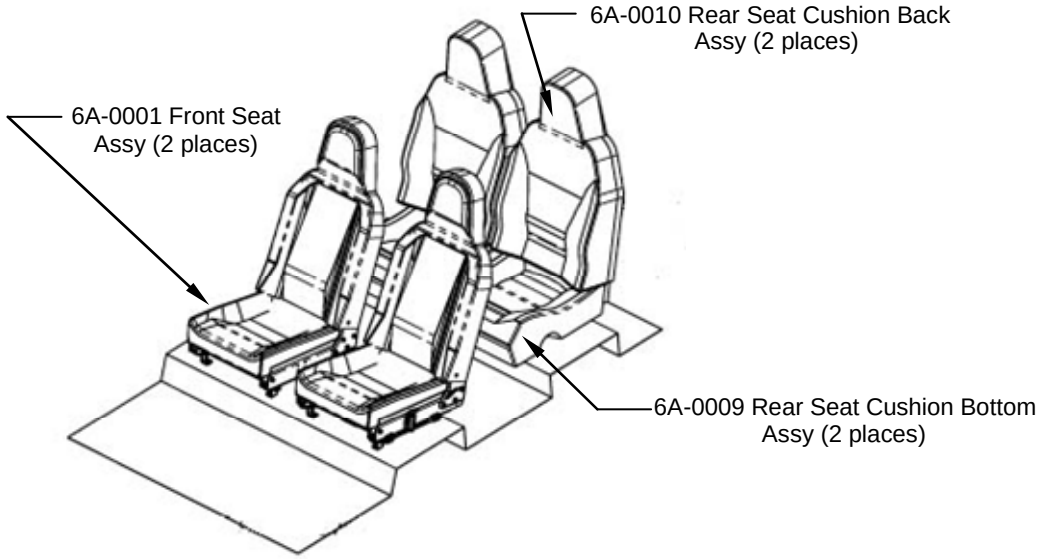


Figure 1 Front & Rear Seat Installation

Table 1 Weight & Center of Gravity Data

Description	Part Numbers	Weight (lb)	Fuselage Station	Water Line
Front Seat w/ standard thin bottom cushion	6A-0001-1 or -2 w/6A-0006 Installed	27.7	111.0	95.4
Front Seat w/ standard medium bottom cushion	6A-0001-1 or -2 w/6A-0007-1 Installed	28.6	110.6	95.4
From Seat w/ standard thick bottom cushion	6A-0001-1 or -2 w/6A-0008 Installed	29.2	110.9	95.3
Front seat w/ LCE bottom cushion (Optional)	6A-0001-3 or -4 w/6A-0007-3 Installed	29.2	112.3	95.6
Standard rear seat installation	6A-0009-1 or -2 & 6A-0010-1	19.2	146.7	97.0
LCE rear seat installation (Optional)	6A-0009-3 or -4 & 6A-0010-3	18.4	146.9	97.2

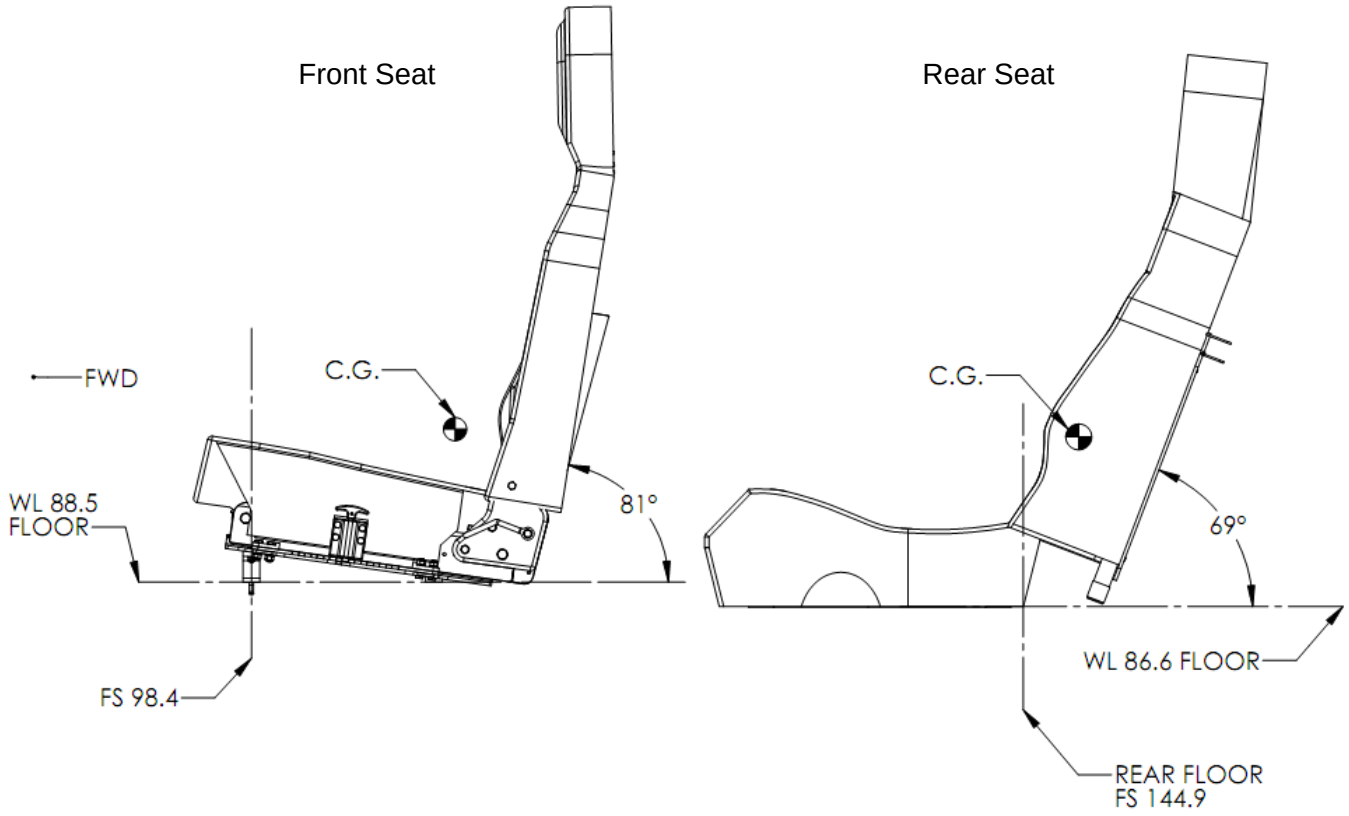


Figure 2 Front & Rear Seat Center of Gravity Locations

2. Inspection Requirements and Schedule

A General Visual Inspection of the Oregon Aero Seat Cushions shall be conducted every year or at an interval that is acceptable to the operator's regulatory authorities and which fits into the operator's scheduled maintenance program. These inspections shall be performed per the following instructions.

2.1. Front Seat Inspections

The Front Seat Assembly 6A-0001 shall be inspected for poor condition and apparent defects as described below.

Figure 3 Front Seat Assembly 6A-0001

2.1.1 Front Seat Bottom Cushions

The seat bottom cushions shall be inspected annually to detect apparent or obvious defects, deterioration in the form of wear or irregularities that cause the seat to become worn or distorted. Replace the cushion if the cover does not fit properly or the cushion becomes "lumpy" (produces an irregular feel). It is permissible to reuse either the foam assembly or dress cover if they are not worn or damaged.

Every three years perform a seat thickness measurement to detect break down or distortion of the foam core. Replace the seat bottom cushions if the measurement is no longer within the stated tolerance. It is permissible to reuse the dress covers if they are in good condition.

It is recommended to replace the seat bottom cushions after every 5000 flight hours or 12 years of service, which ever comes first. It is permissible to reuse the dress covers if they are in good condition.

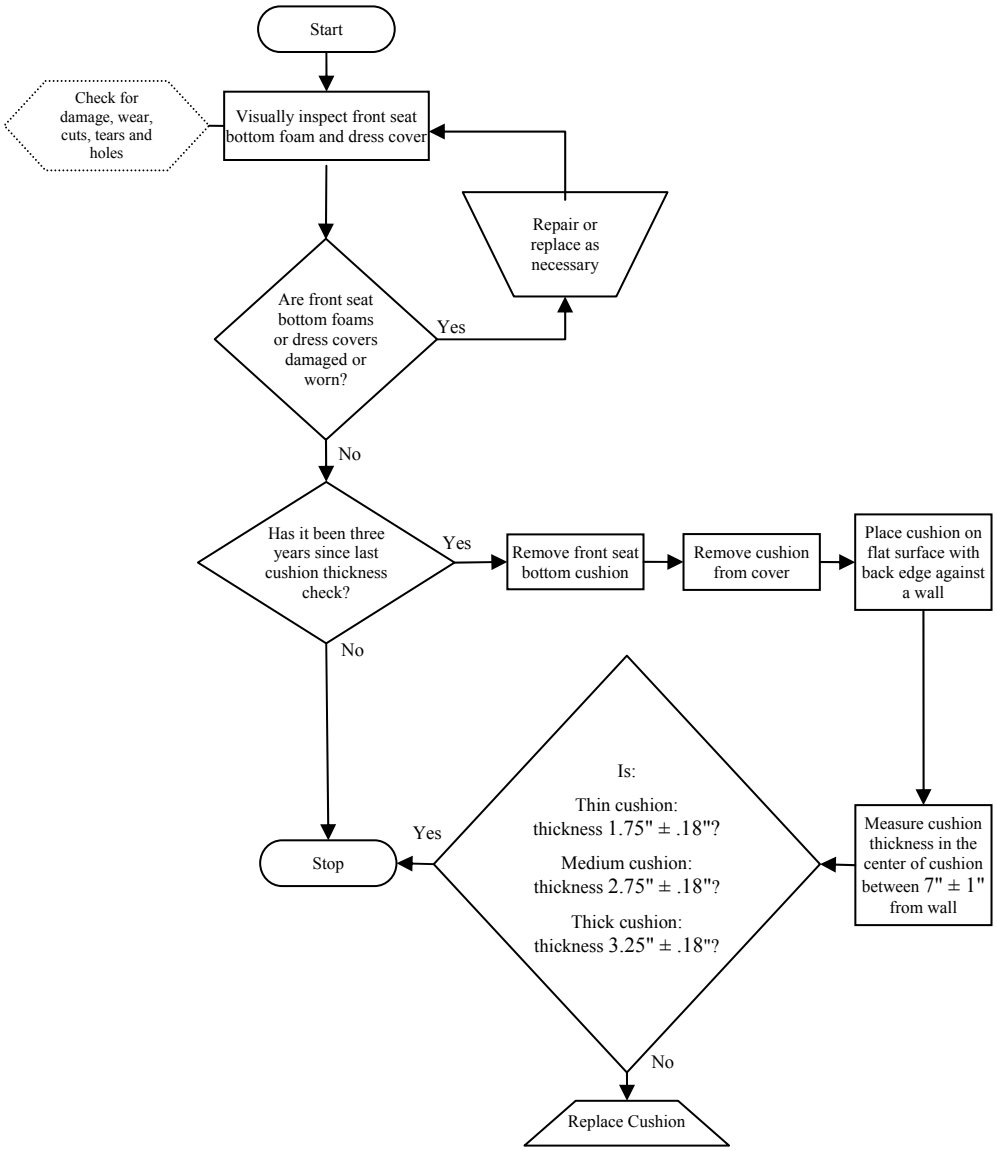


Figure 4 Front Seat Bottom Cushion Inspection

2.1.2 Front Seat Back Cushions

The Front Seat Back Cushion is an on-condition maintenance item. Perform a general visual inspection of the Front Seat Back Cushion and replace it if it becomes worn or distorted to the point where the dress cover does not fit properly or the cushion becomes "lumpy" (produces an irregular feel).

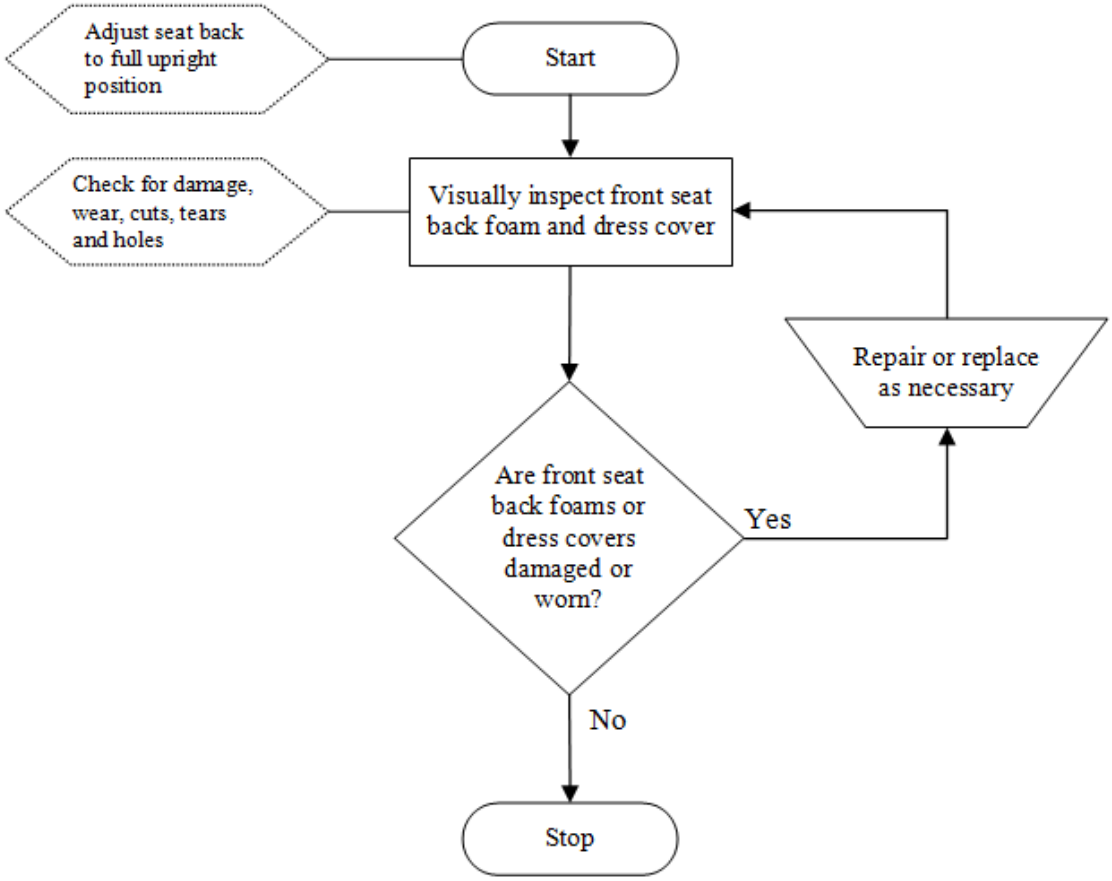


Figure 5 Front Back Cushion Inspection

2.1.3 Front Seat Lumbar Cushion

When there is a separate lumbar cushion assembly it is an on-condition maintenance item. Perform a detailed inspection of the cushion to detect apparent or obvious defects, deterioration in the form of wear or irregularities that cause the seat to become worn or distorted. Replace the cushion if this wear develops to the point where the dress cover does not fit properly or the cushion becomes “lumpy” (produces an irregular feel).

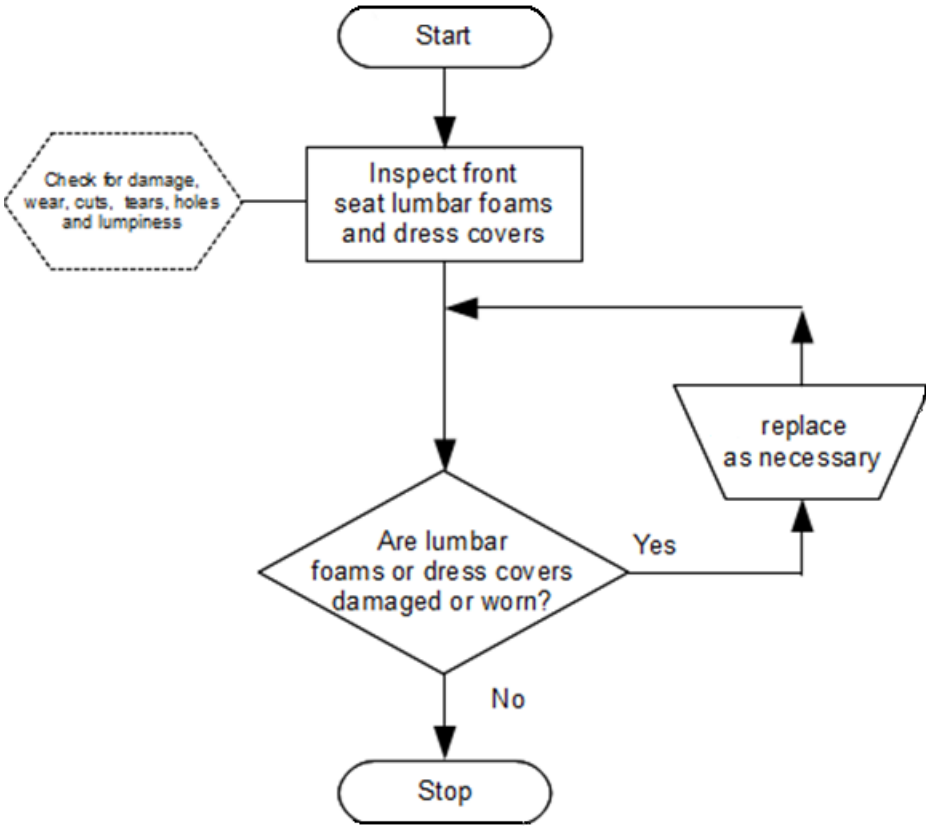


Figure 6 Front Seat Lumbar Cushion Inspection

2.1.4 Front Seat Diaphragm

Remove the bottom cushion from the front seats and perform detailed inspection of the diaphragms for apparent or obvious defects, damage or unusual wear. Unusual wear could be detected as a hole, cut, abrasion or frayed fabric. The diaphragm is to be replaced if any such damage is detected (See Section 10.2).

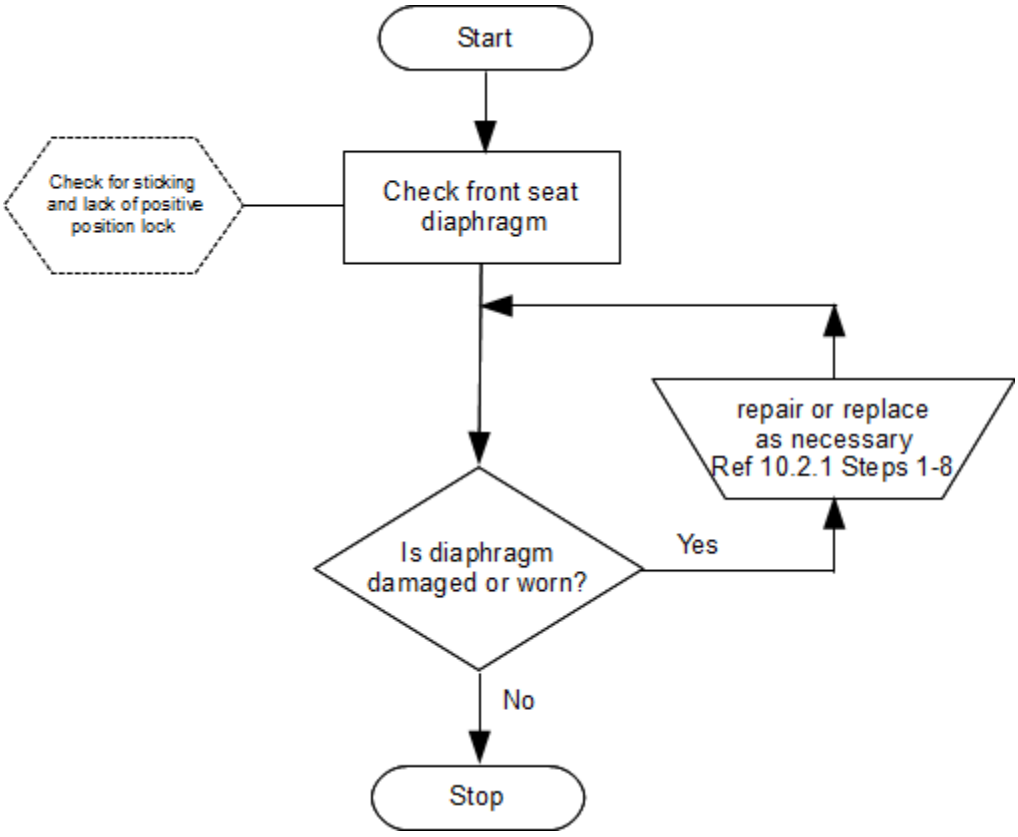


Figure 7 Front Seat Diaphragm Inspection

2.1.5 Front Seat Frame

Perform a detailed inspection of the seat frame (excluding the metal frame that is imbedded in the back cushion). This assembly is an on-condition maintenance item. Therefore, inspect the metal parts of the seat, paying special attention to the fore/aft and seat recline adjustment and latch mechanisms. Contact Oregon Aero for disposition and instructions in the event any noticeable wear is detected or if any latch fails to engage properly.

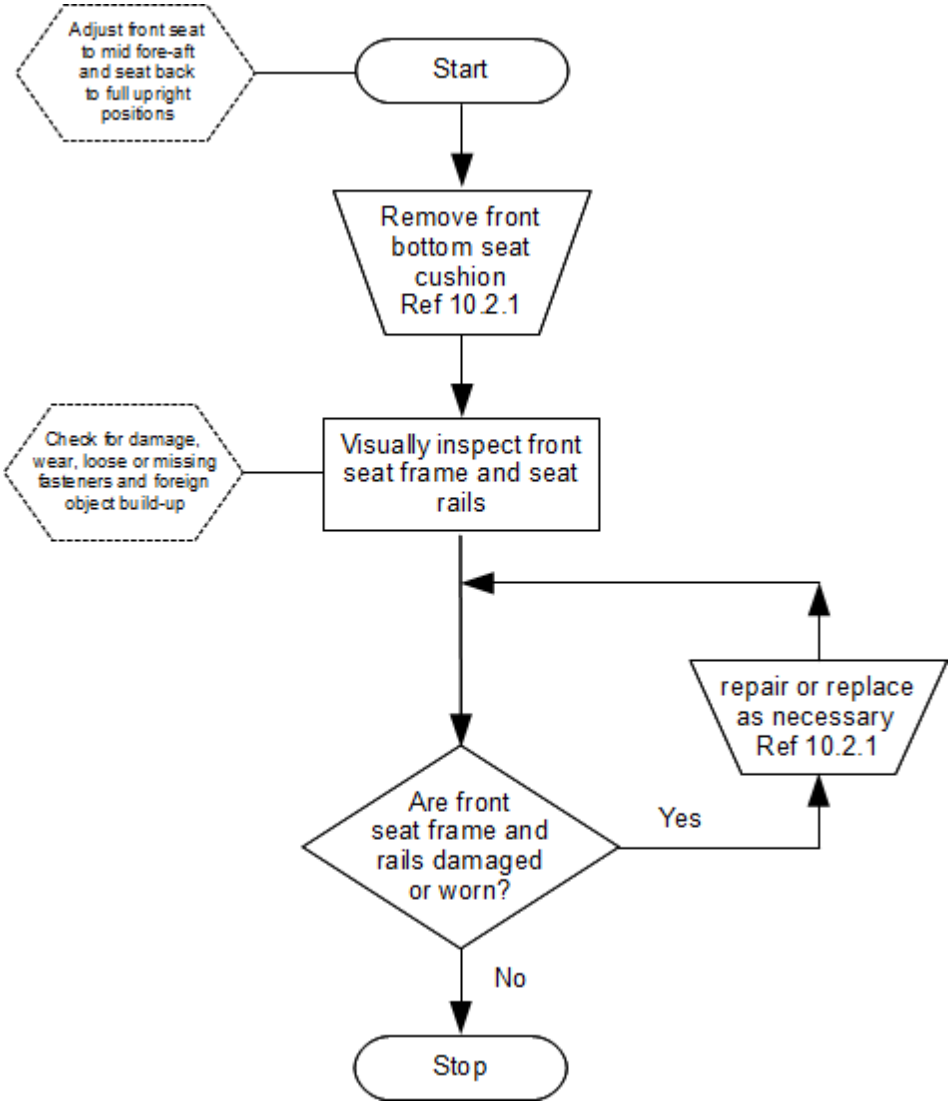


Figure 8 Front Seat Frame Inspection

2.1.6 Front Seat Fore-Aft Adjustment Mechanism

The inspection process for the front seat's fore-aft adjustment mechanism is described in Figure 9.

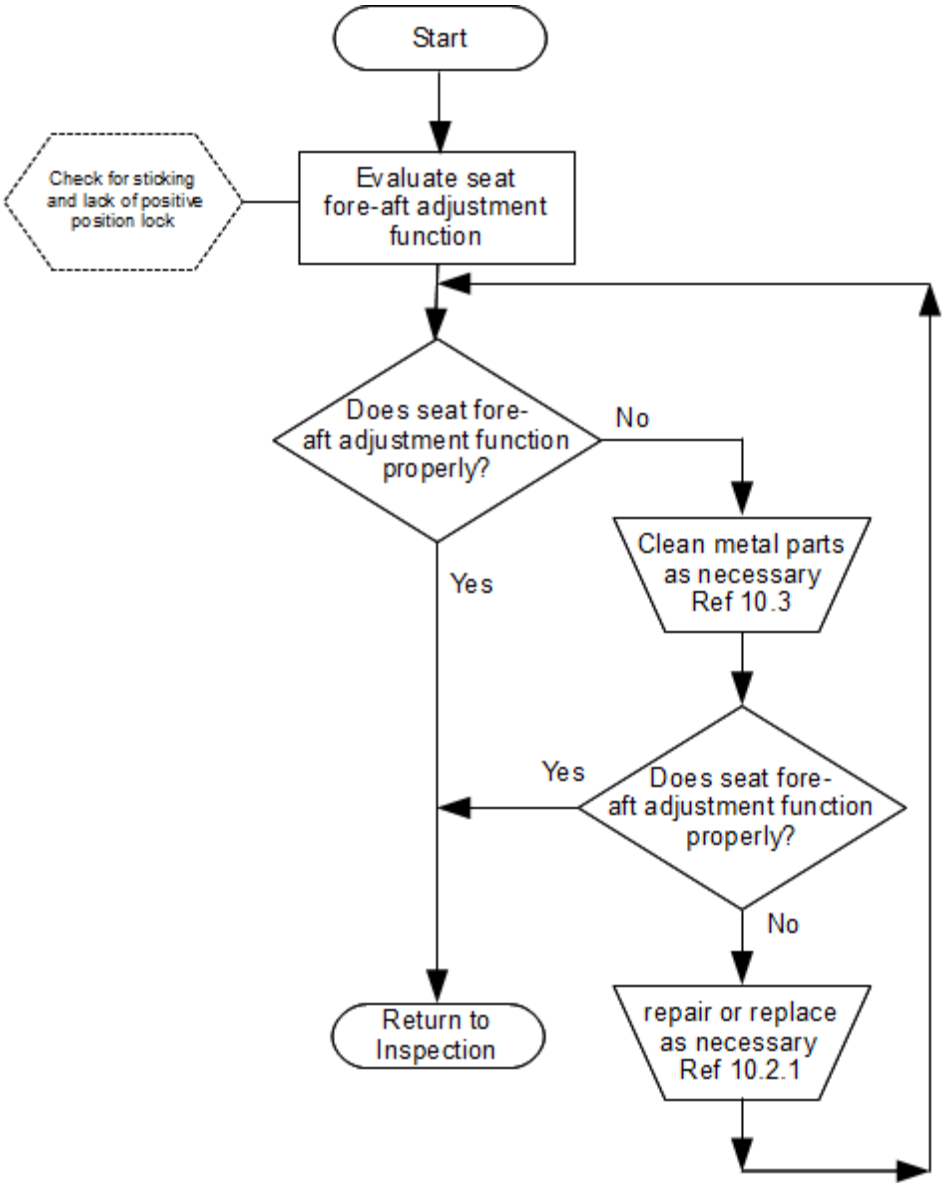


Figure 9 Front Seat Fore-Aft Adjustment Mechanism Inspection

2.1.7 Front Seat Recline Adjustment Mechanism

The inspection process for the front seat's recline adjustment mechanism is described in Figure 10.

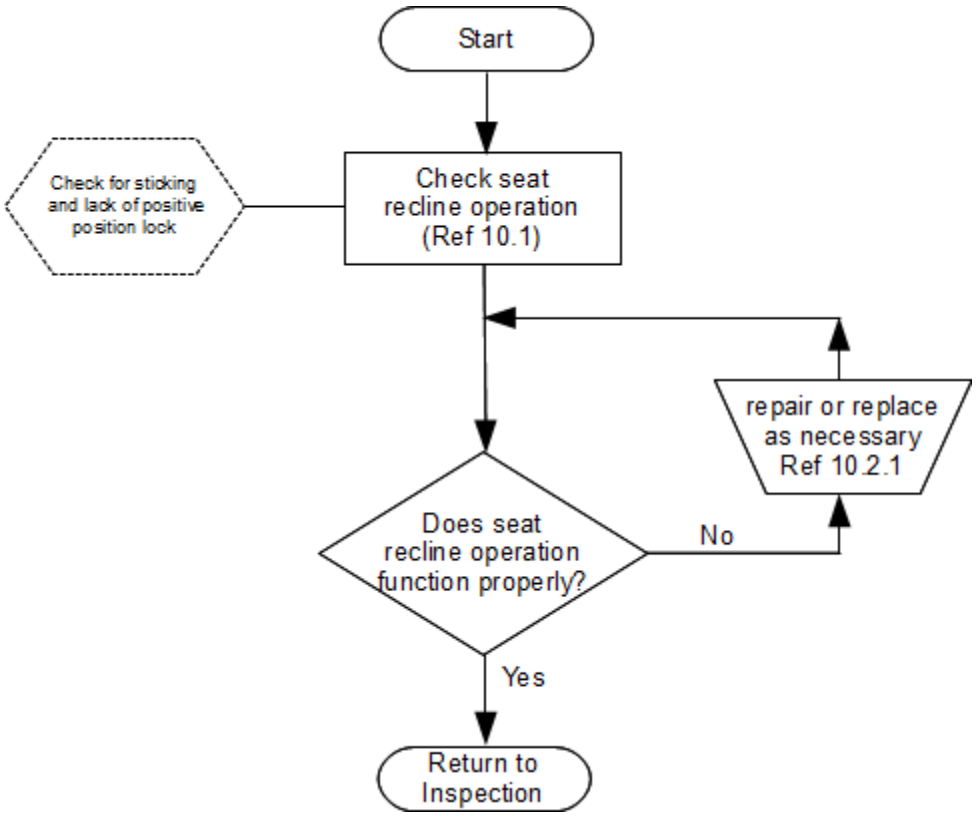


Figure 10 Front Seat Recline Adjustment Mechanism Inspection

2.1.8 Front Seat Placards

The inspection procedure for the placards shown in Figure 15, Figure 16 & Figure 17 are described in Figure 11.

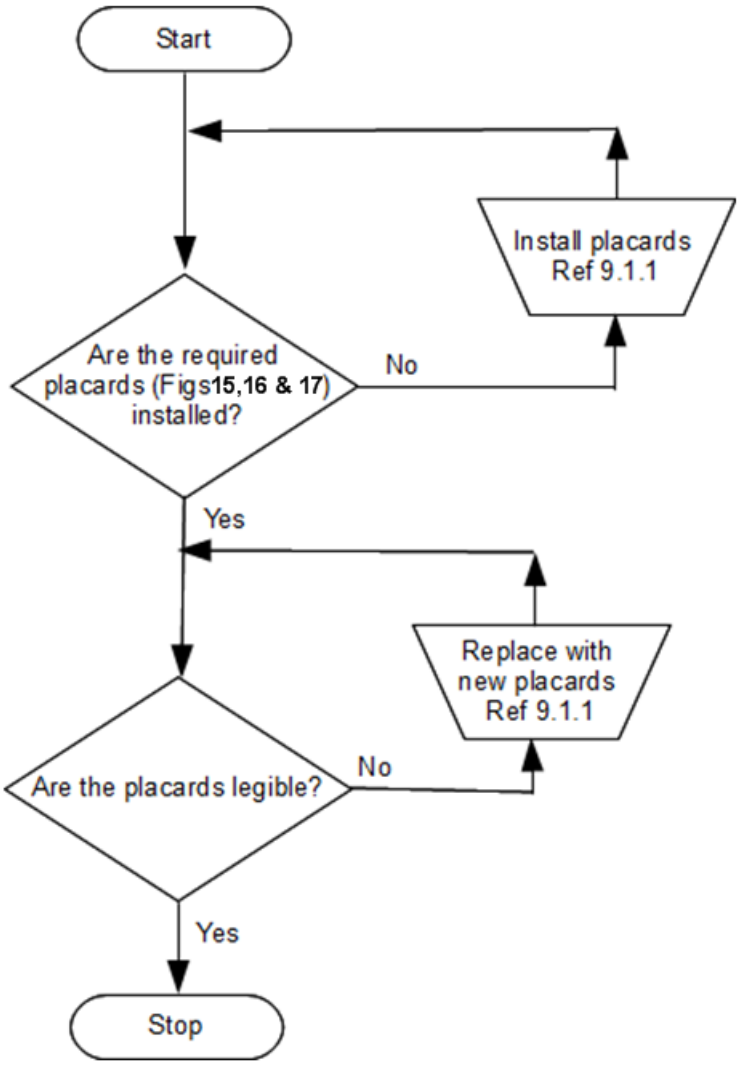


Figure 11 Front Seat Placard Inspection

2.2. Rear Seat Inspections

The rear seating consists of a pair of bottom cushions and a pair of seat backs, which are attached to the airframe. These are shown in Figure 12 below. In some aircraft models it is permissible to operate with the rear seats removed, consult the OEM manuals for limitations.

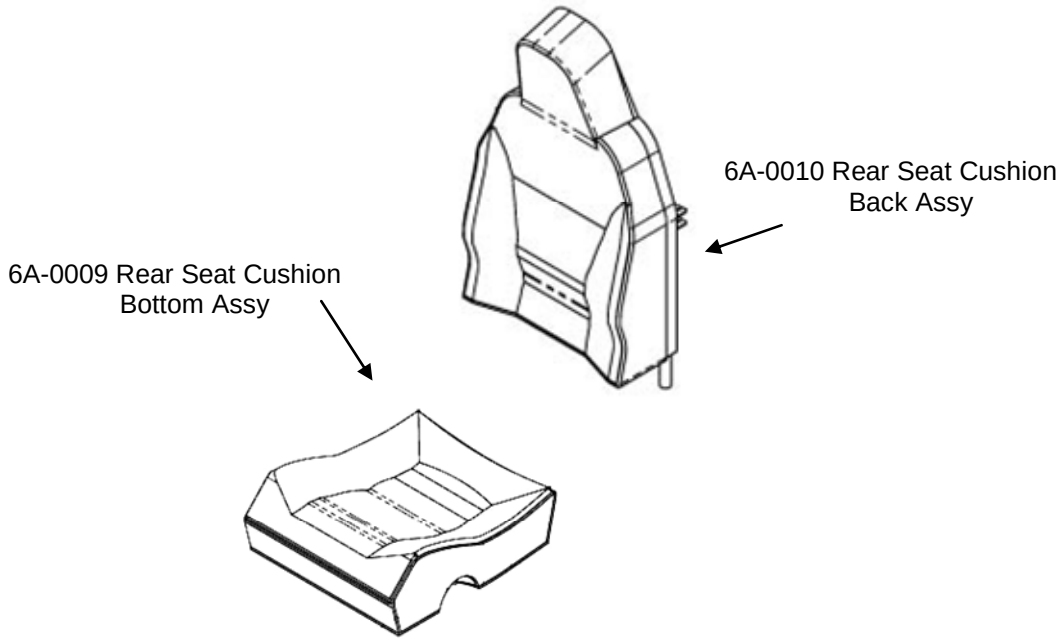


Figure 12 Rear Seat Assembly

2.2.1 Rear Seat Bottom Cushions

The seat bottom cushions shall be inspected annually to detect apparent or obvious defects, deterioration in the form of wear or irregularities that cause the seat to become worn or distorted. Replace the cushion if the cover does not fit properly or the cushion becomes "lumpy" (produces an irregular feel). It is permissible to reuse either the foam assembly or dress cover if they are not worn or damaged.

Every three years perform a seat thickness measurement to detect break down or distortion of the foam core. Replace the seat bottom cushions if the measurement is no longer within the stated tolerance. It is permissible to reuse the dress covers if they are in good condition.

It is recommended to replace the seat bottom cushions after every 5000 flight hours or 12 years of service, which ever comes first. It is permissible to reuse the dress covers if they are in good condition.

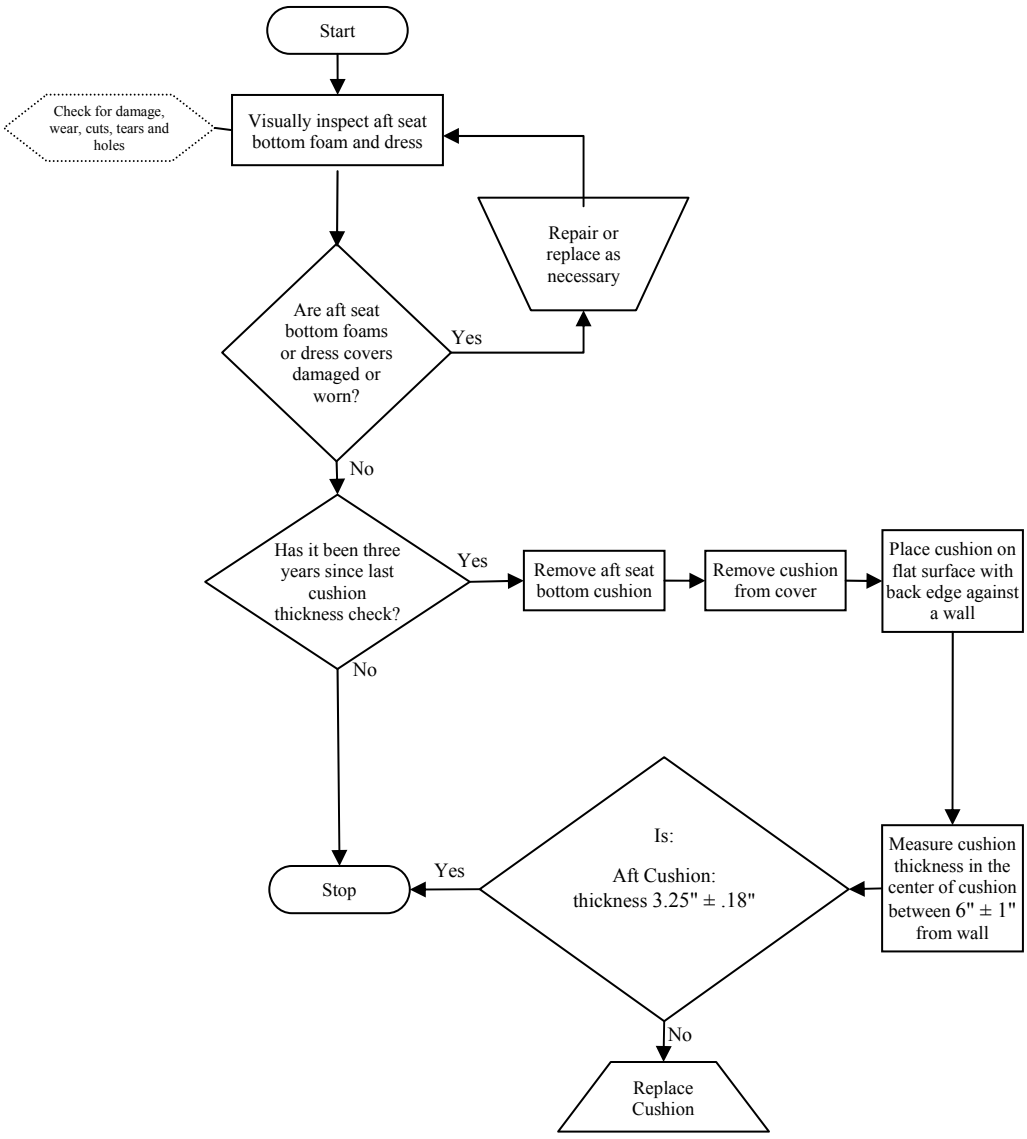


Figure 13 Rear Seat Bottom Cushion Inspection

2.2.2 Rear Seat Back Cushion

The Rear Seat Back Cushion is an on-condition maintenance item. Perform a general visual inspection of the Rear Seat Back Cushion and replace it if it becomes worn or distorted to the point where the dress cover does not fit properly or the cushion becomes “lumpy” (produces an irregular feel).

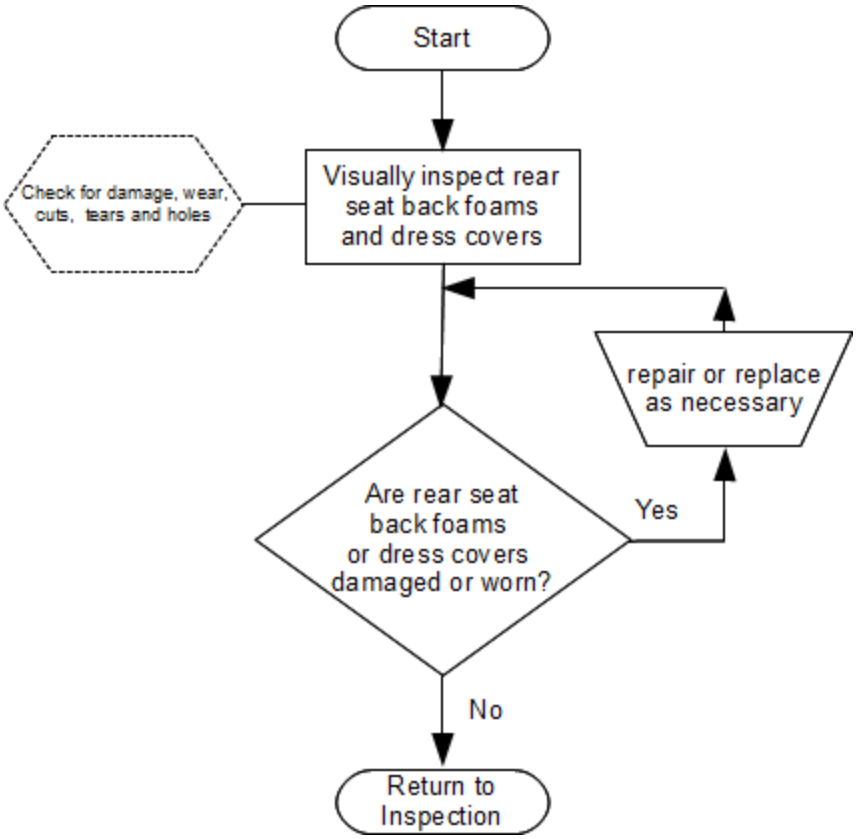


Figure 14 Rear Seat Back Cushion Inspection

3. Overhaul Requirements

No overhaul requirements apply to the Oregon Aero seat and cushion installations.

4. Dimensions and Access

The Oregon Aero Foam replacement cushions do not significantly change the dimensions of the aircraft or access to any aircraft system. The Oregon Aero Foam Front Seats are installed in the same way as the original Front Seats that they replace. Similarly, the Rear Seat Cushions are installed and removed in exactly the same way as the cushions they replace. Therefore, there is no change to the access of the new seat or other aircraft systems. Access to the front seat structure is provided by removing the Front Seat Bottom Cushions.

5. Lifting and Shoring

No Change.

6. Leveling and Weighing

No Change.

7. Towing and Taxiing

No Change.

8. Parking and Mooring

No Change

9. Placards and Markings

If labels are not legible, contact Oregon Aero for replacement.

9.1. Front Seats

The Oregon Aero front seats are identified by the following labels:

a) 6L-A0001-1 Label, LH Front Seat
b) 6L-A0001-2 Label, RH Front Seat
c) 6L-A0001-3 Label, LH Front Seat - LCE
d) 6L-A0001-4 Label, RH Front Seat - LCE
e) 6L-B0012 or 6L-B0012-3 Label, Seat Bottom Diaphragm
f) 6L-A0006 Label, Seat Cushion Bottom Assembly - Thin
g) 6L-A0007-1 Label, Seat Cushion Bottom Assembly - Medium
h) 6L-A0007-3 Label, Seat Cushion Bottom Assembly - Medium - LCE
i) 6L-A0008 Label, Seat Cushion Bottom Assembly - Thick
j) 6L-A0012 Label, Lumbar Assembly - when present

9.1.1 Placard Installation Instructions

The “No Smoking / Escape Hatchet” placards were installed on the aft side of the front seat backs in early serial numbers of aircraft manufactured by Lancair International, Inc (Figure15). If the front seats containing this placard are removed, then the following procedure describes their replacement.

1. Install Placard 6L-0001-1/6L-0001-3 (or equivalent) shown in Figure16 on left aircraft cabin door as per OAI specification 6-LS001 Rev IR (Ref: Appendix B).
2. Install Placard 6L-0001-2/6L-0001-4 (or equivalent) shown in Figure 17 on right aircraft cabin door as per OAI specification 6-LS001 Rev IR (Ref: Appendix B).
3. Cessna part numbers: 2805110-3, 2808110-27 or DB53110003-3 may be substituted with Oregon Aero p/n 6L-0001-1/6L-0001-3 .
4. Cessna part numbers: 2805110-28, 2808110-29 or DB53110003-2 may be substituted with Oregon Aero p/n 6L-0001-2/6L-0001-4.

Embroidered text:

"NO SMOKING EMERGENCY ESCAPE HATCHET UNDER FRONT OF PILOT SEAT"

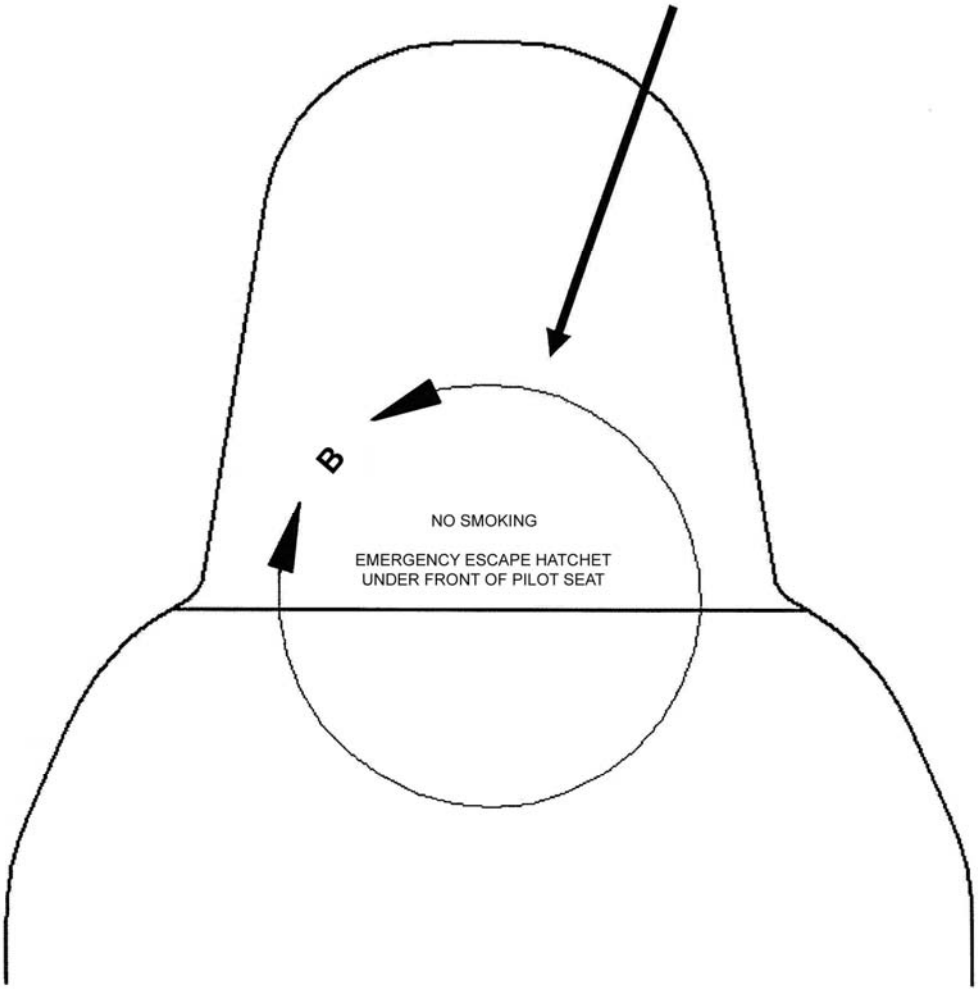
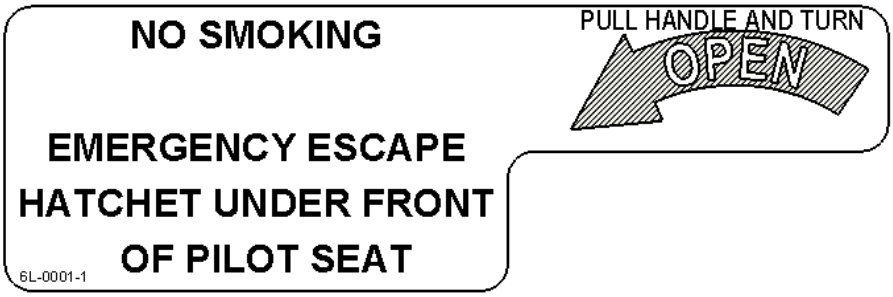
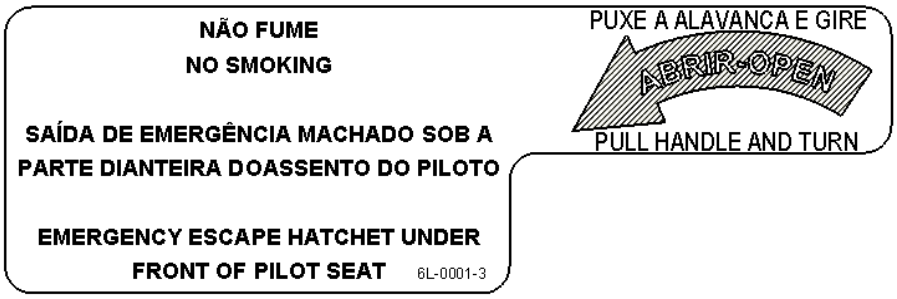


Figure 15 Original No Smoking / Escape Hatchet Placard

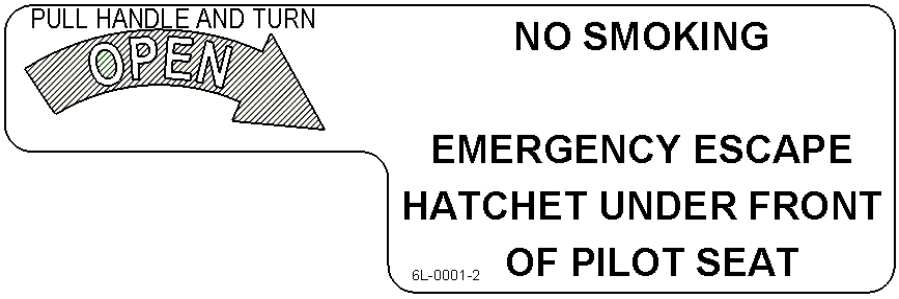


(a) Placard, Open Left Cabin Door, Interior English 6L-0001-1

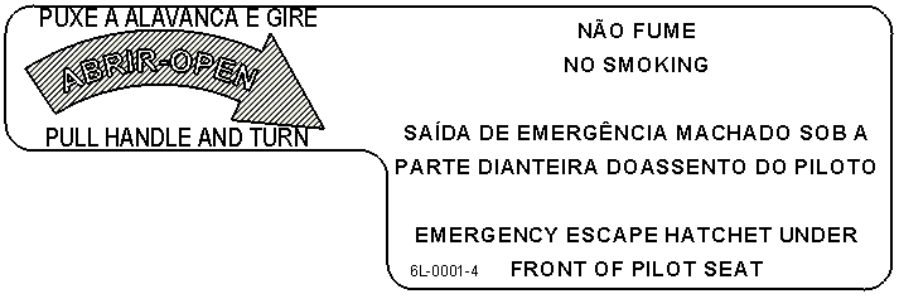


(b) Placard, Open Left Cabin Door, Interior Portuguese/English 6L-0001-3

Figure 16 Current LH No Smoking / Escape Hatchet Placard



(a) Placard, Open Right Cabin Door, Interior English 6L-0001-2



(b) Placard, Open Right Cabin Door, Interior Portuguese/English 6L-0001-4

Figure 17 Current RH No Smoking / Escape Hatchet Placard

9.2. Rear Seats

The rear seat bottom cushions are identified by the following labels:

a) 6L-A0009-1 Label, LH Rear Seat Cushion Bottom Assy
b) 6L-A0009-2 Label, RH Rear Seat Cushion Bottom Assy
c) 6L-A0009-3 Label, LH Rear Seat Cushion Bottom Assy LCE
d) 6L-A0009-4 Label, RH Rear Seat Cushion Bottom Assy LCE
e) 6L-A0010-1 Label, Rear Seat Cushion Back Assembly
f) 6L-A0010-3 Label, Rear Seat Cushion Back Assembly-LCE

10. Servicing

10.1. Recline Test and Fault Isolation Procedure

1. Check the aircraft floor for flatness before proceeding with the fault isolation process, described below. Refer to Oregon Aero document QWI- 6I-0001, paragraph 2.1.1.1 and paragraph 2.1.2.1 (Ref: Appendix A).

1A. Once floor flatness is confirmed per OAI document, QWI-6I-0001, paragraph 2.1.1.1 and paragraph 2.1.2.1, perform the seat recline and fore-aft operation tests described below.

2. If seats still do not recline properly follow steps 2A – 2D.

2A. Inspect condition of compression spring on the 6S-0014 Spring Plunger Assembly.

2B. Lift recline lever and place seat back in forward unlocked position. Inspect recline gears for foreign material. Clean gear teeth with stiff bristled nylon brush or equivalent only.

2C. Place seat back in the aft-most position. Loosen the four MS21083N4 nuts, **do not remove**, "wiggle " seat back, then re-torque MS20183N4 nuts (see Figure 19) to 30-40 inch pounds in sequence of lower right, upper right, upper left, lower left.

2D. Retest recline mechanism in each locking position for proper operation per Oregon Aero document QWI-6I-0001 appendix A (Ref: Appendix A).

3. Perform the following if the seat fore-aft adjustment does not function smoothly, or if the seats cannot be locked into each fore-aft position.

3A. Identify and remove all obstructions and use compressed air to clean seat track guides.

3B. If obstruction is present, or if the seat does not adjust smoothly after the tracks have been cleaned with compressed air, remove the seat from the track. Inspect the seat track guides for damage and repair or replace as necessary.

3C. Retest the fore-aft seat track adjustment for proper operation.

10.2. Disassembly

NOTE: Refer to test and fault isolation to establish the condition of the seat or most probable cause of its malfunction. This is to determine the extent of disassembly required without completely tearing down and rebuilding the seat.

A. This section contains disassembly instructions for part repair or replacement. These instructions are presented in the order they shall be performed. Skip unnecessary steps if only partial disassembly is required.

B. Do not remove any labels unless required for parts replacement.

10.2.1 Disassembly of front seat assembly

1. 6A-0001 Seat Bottom Cushion Removal (Figure 18)

Step	Description	Substep
1	❒ Remove bottom seat cushion assembly	6A-0006 Seat Cushion Bottom Assy – Thin, OR 6A-0007-1 Seat Cushion Bottom Assy – Medium, OR 6A-0008 Seat Cushion Bottom Assy – Thick, OR 6A-0007-3 Seat Cushion Bottom Assy – Medium – LCE (Optional)
2	❒ Store upholstered items in a clean, dry area.	

2. 6A-0003 Seat Back Frame Removal (Figure 19)

Step	Description	Substep
1	❒ Remove seat back hardware	❒ MS21083N4 ¼-28 Locking Nut (4) ❒ NAS1149F0432P Washers (4) ❒ AN4-13A ¼-28 Bolt (4)
2	❒ Remove 6S-0005 Seat Back Assembly	
3	❒ Store upholstered items in a clean, dry area.	

3. 6A-0005 Assembly – Base Track Removal (Figure 22)

Step	Description	Substep
1	❒ Remove 6S-0002 Stop Assembly hardware	❒ MS20144N3 10-32 Locking Nut (4) ❒ NAS1149F0363P Washers (4) ❒ Remove AN3-6A 10-32 Bolt (4)
2	❒ Remove 6S-0002 Stop Assembly	
3	❒ Remove Assembly – Base Track	6A-0005-1 OR 6A-0005-2

4. 6S-0014-101 Spring Plunger Removal (Figure 22)

Step	Description	Substep
1	❒ Remove 6S-0014-101 Spring Plunger Assembly	❒ MS21044N4 ¼-28 Locking Nut (1) ❒ NAS1149F0463P Washer (1) ❒ NAS1352-08-16P 8-32 Cap Screw (1) ❒ AN4-13A ¼-28 Bolt (1) ❒ NAS1149F0416P Washer (1)

5. 6P-0011 Recline Lever Removal (Figure 22)

Step	Description	Substep
1	❒ Remove 6P-0011 Recline Lever	❒ AN4-3A ¼-28 Bolt (1) ❒ NAS1149F0463P Washer (1) ❒ 6P-0011-1 Recline Lever OR 6P-0011-2 Recline Lever

6. 6P-0014 Gear Housing Removal (Figure 22)

Step	Description	Substep
1	❒ Remove 6P-0027-2 Gear Cover	❒ MS21044N4 ¼-28 Locking Nut (1) ❒ AN970-4 Large Washer (1) ❒ AN4-7A ¼-28 Bolt (1) ❒ NAS1149F0416P Washer (1) ❒ MS35206-226 6-32 Screws (2) ❒ MS35206-241 8-32 Screw (1)
2	❒ Remove Recline mechanism	❒ 6V-0006 Washer - Teflon (4) ❒ 6P-0003 Rack (1) ❒ 6P-0005-1 Bushing (2) ❒ 6P-0009-1 Bearing – DU (1)
3	❒ Remove 6P-0014-2 Gear Housing	❒ MS21044N4 ¼-28 Locking Nut (1) ❒ NAS1149F0463P Washer (1) ❒ AN4-7A ¼-28 Bolt (1) ❒ NAS1149F0416P Washer (1) ❒ AN6-12A ⅜-24 Bolt (1) ❒ NAS1149F0663P Washer (1) ❒ 6V-0007 Bearing – DU (1)
4	❒ Remove 6P-0004-5 Pinion	❒ 6P-0009-1 DU Bearing (1)
5	❒ Remove 6P-0014-1 Gear Housing	❒ MS21044N4 ¼-28 Locking Nut (1) ❒ NAS1149F0463P Washer (1) ❒ AN4-7A ¼-28 Bolt (1) ❒ NAS1149F0416P Washer (1) ❒ AN6-12A ⅜-24 Bolt (1) ❒ NAS1149F0663P Washer (1)

7. 6P-0014-1 Gear Housing Disassembly (Figure 22)

Step	Description	Substep
1	❒ Remove 6P-0027-1 Gear Cover	❒ MS21044N4 ¼-28 Locking Nut (2) ❒ AN970-4 Large Washer (2) ❒ AN4-7A ¼-28 Bolt (2) ❒ NAS1149F0416P Washer (2) ❒ MS35206-226 6-32 Screw (2) ❒ 6V-0050 Spring – Tension* (1) ❒ MS27039-08-08 – 8-32 Screw* (1) ❒ AN340-8 Nut – 8-32* (1)
2	❒ Remove Recline mechanism	❒ 6V-0006 Washer – Teflon (4) ❒ 6P-0003 Rack (1) ❒ 6P-0005-1 Bushing (2) ❒ 6W-0002-101 Torque Tube Weld Assembly (1) ❒ 6P-0004-5 Pinion (1) ❒ 6P-0009-1 Bearing – DU (2)
3	❒ Remove 6P-0014-1 Gear Housing	❒ 6V-0007 Bearing – DU (1)

* Figure

8. 6S-0001 Seat Pan Disassembly (Figure 22)

Step	Description	Substep
1	❒ Remove 6S-0004-2 Spreader Bar Assembly H-G 10	❒ AN6-10A ⅜-24 Bolt (1) ❒ NAS1149F0663P Washer (1) ❒ 6P-0005-5 Bushing (1) ❒ 6P-0005-3 Bushing (1)
2	❒ Remove rear 6S-0003-101 Cross Tube Assembly 18W	
3	❒ Remove 6B-0012-101 Seat Bottom – Diaphragm 2	
4	❒ Remove 6S-0004-1 Spreader Bar Assembly H-G 10	❒ AN6-10A ⅜-24 Bolt (1) ❒ NAS1149F0663P Washer (1) ❒ 6P-0005-5 Bushing (1)

10.2.2 Sub-assembly dismantle

1. 6A-0005 Assembly – Base Track (Figure 23)

Step	Description	Substep
1	❒ 6P-0029 Seat Track 8 Deg w/stop and 6P-0030 Seat track 8 Deg	
2	❒ Remove 6P-0019 Front 8 Degree Support	❒ MS21044N3 10-32 Locking Nut (2) ❒ NAS1149F0363P Washers (2) ❒ AN3-6A 10-32 Bolts (2) ❒ AN4-7A ¼-28 Bolt (1)
3	❒ Remove 6P-0020 Back 8 Degree Support	❒ MS24694C48 Flat Head Screw 10-32 (1)
4	❒ Remove 6P-0026 Lock Stop	❒ MS21044N4 ¼-28 Locking Nut (4) ❒ NAS1149F0463P Washers (4) ❒ AN4-10A ¼-28 Bolt (4)
5	❒ Remove 6P-0018 Lock Comb	
6	❒ Remove 6V-0003 Pin – Springlock	

2. 6S-0002 Stop Assembly is a non serviceable part.

*Use compressed air to clean if assembly is sticking.

3. 6S-0003-101 Cross Tube Assembly 18W (Figure 24)

Step	Description	Substep
1	❒ 6P-0022-101 Cross Tube 18W	
2	❒ Remove 6P-0007 Plug	❒ MS21044N4 ¼-28 Locking Nut (2) ❒ NAS1149F0432P Washers (4) ❒ AN4-17A ¼-28 Bolt (2) ❒ MS21044N6 ⅜-24 Locking Nut (2)

4. 6S-0004 Spreader Bar Assembly H-G 10 (Figure 25)

Step	Description	Substep
1	❒ 6P-0021 Spreader Bar1	
2	❒ Remove Linear Guides	❒ MS21083N3 10-32 Locking Nut (2) ❒ MS35207-261 10-32 Screw (2) ❒ 6P-0028 Linear Guide Seat Track 2 (1) ❒ 6P-0023 Linear Guide Seat Track (1)

10.3. Cleaning

10.3.1 Metal Parts

1. Clean all metal and aluminum parts with a detergent and water mix (A mixture of Simple Green® Aircraft & Precision Cleaner and warm water or Formula 409® works well). Dry with a paper or cloth towel.

1A. The 6P-0003 Rack gear "teeth" and 6P-0004-5 Pinion gear "teeth" can be cleaned with a stiff bristled nylon brush or equivalent only, to remove any possible foreign material between gear teeth.

1B. The fore-aft adjustment mechanism, including the lock-and-comb assembly, can be cleaned using compressed air.

2. Parts and assemblies should always be visually inspected for residual dirt and foreign materials at the conclusion of the cleaning process. The process should be repeated if any dirt or foreign materials are detected.

10.3.2 Leather

1. Periodic Care: Dust or vacuum the surface to remove light topical dust and soil.

2. Cleaning Instructions: The leather should be cleaned on condition. Never use saddle soap, solvents, abrasives or caustic household cleaners such as laundry detergent or dish detergent. Use a cloth damped (not wet) in mild soap (Ivory or Castile) solution. Apply the cloth to the surface of the leather in a light circular motion, turning the cloth regularly. Avoid aggressive rubbing action. Repeat with a damp cloth rinsed in clean warm water. Allow to air dry and then lightly polish using a clean, dry soft cloth. Always pretest any product you use in a hidden area before widespread use. For tough stains, contact Oregon Aero for additional cleaning instructions.

10.3.3 Fabric Upholstery

1. Weekly Care: Vacuum the surface to remove light topical soil.

2. Cleaning Instructions: The following procedure should be used with all cleaning agents:

   A clean white cloth should be dampened with the recommended cleaning agent (Table 2A). Optimal cleaning will be achieved by not over wetting the cloth and by turning it frequently to keep it clean. Rings can be avoided by working from the outer edge of the stain inward. This process should be repeated until the spot is removed or there is no further transfer to the cloth. Strong chemicals, including all solvents, are to be avoided since they will damage the fire retardant treatment of the dress cover and may cause damage to the cushion cores. Always pretest any cleaning product you use in a hidden area before widespread use.

2A. Approved cleaning agents

Cleaning Agent	Manufacturer	Concentration
Tide®	The Proctor & Gamble Company.	One-teaspoon of powder detergent in 1-pint warm water.
all®	The Sun Products Corporation	
Resolve® RB79838 Carpet Cleaner	Reckitt Benckiser, Inc.	

10.3.4 Carpet Upholstery

1. Weekly Care: Vacuum the surface to remove dry soil. Appropriate vacuuming calls for at least four slow passes back and forth in the same area.

2. Cleaning Instructions: Spills and spots must be attended to with immediacy, as spills that are allowed to dry are much more difficult to remove. The pH range of cleaning chemicals should be 5.5 to 8.0. Do not use cleaning chemicals outside this range as this could damage the fiber. Never rub spots or spills on wool carpet; use a blotting action only. Blot up liquids with white paper towels or absorbent cloth; scoop up solids with the end of a blunt knife or spoon.

2A. Spot Cleaning: Treat the spot according to the following cleaning instructions. Apply spot removal agent to clean towel or cloth, not directly on the spot. Use small quantities at a time. Always work inward from edge to prevent spreading. Do no rub, or over-wet the carpet pile. Blot as dry as possible with clean white towel. Always pre-test a cleaning agent in an inconspicuous place to ensure it does not remove color.

10.4. Parts Check

10.4.1 General

A. Visually check all parts for cracks, cuts, corrosion and stripped threads, scoring, excessive wear, and other defects that could impair efficient seat operation. Inspect all parts in a well lighted area.

Note: Excessive wear is defined as obvious deformation or deterioration of a part which can render the part inoperative. If doubt exists concerning the serviceability of a part, replace the part.

B. A preliminary check before the parts are cleaned can detect obvious defects.

10.4.2 Detailed check list

A. Check sewn seams for fraying or separation.

B. Check fabric for fraying, scuffing, and rips.

C. Check attaching bolts, nuts, and screws for correct torque.

D. Check structural parts and machined parts for cracks.

E. Check labels for legibility and secure attachment.

10.5. Assembly

10.5.1 General

A. This section contains reassembly instructions. These instructions are presented in the order they shall be performed. Skip unnecessary steps if the seat is already partially assembled.

B. During reassembly, always install new low cost items, such as bolts, screws, washers and nuts, when possible to prevent future maintenance requirements due to failure of these items. Prior to assembly, check all parts for wear and/or damage which could result in failure of the seat assembly or any of the seats sub-assemblies.

10.5.2 Sub-assembly procedures

1. 6A-0005 Assembly – Base Track (Figure 23)

Step	Description	Substep
1	❒ 6P-0029 Seat Track 8 Deg w/stop and 6P-0030 Seat track 8 Deg	
2	❒ Install 6V-0003 Pin – Springlock	
3	❒ Install 6P-0018 Lock Comb	
4	❒ Install 6P-0026 Lock Stop	❒ AN4-10A ¼-28 Bolt (4) ❒ 6P-0026 Lock Stop (2) ❒ NAS1149F0463P Washer (4) ❒ MS21044N4 ¼-28 Locking Nut (4) * Torque nuts to 50-70 in-lb
5	❒ Install 6P-0019 Front 8 Degree Support	❒ AN4-7A ¼-28 Bolt (1) ❒ AN3-6A 10-32 Bolt (2) ❒ NAS1149F0363P Washer (2) ❒ MS21044N3 10-32 Locking Nut (2) * Torque nuts to 20-25 in-lb
6	❒ Install 6P-0020 Back 8 degree Support	❒ MS24694C48 10-32 Screw (1) * Use . ¼-in pin or ¼-in bolt for bore alignment * Apply Loctite 242 Medium strength to screw threads

2. 6S-0003-101 Cross Tube Assembly 18W (Figure 24)

Step	Description	Substep
1	❒ 6P-0007 Plug (2)	❒ MS21044N6 Locking Nut ⅜-24 (2)
2	❒ 6P-0022-101 Cross Tube 18W	
3	❒ Install 6P-0007 Plug	❒ AN4-17A ¼-28 Bolt (2) ❒ NAS1149F0432P Washer (4) ❒ MS21044N4 ¼-28 Locking Nut (2) * Torque nuts to 50-70 in-lb * Nylon insert in nut must face inboard

3. 6S-0004 Spreader Bar Assembly H-G 10 (Figure 25)

Step	Description	Substep
1	❒ 6P-0021 Spreader Bar1	
2	❒ Install Linear Guides	❒ 6P-0023 Linear Guide Seat Track (1) ❒ 6P-0028 Linear Guide Seat Track 2 (1) ❒ MS35207-261 10-32 Pan Head Screw (2) ❒ MS21083N3 10-32 Locking Nut (2) * Torque nuts to 12-15 in-lb

4. 6S-0014-101 Spring Plunger Assembly (Figure 26)

Step	Description	Substep
1	❒ 6S-0014-101 Spring Plunger Assembly	❒ 6P-0016-1 Spring Retainer (1) ❒ 6V-0030 Spring - Compression (1) ❒ 6P-0017 Plunger Button (1)

10.5.3 Front seat assembly

1. 6S-0001 Seat Pan Assembly (Figure 21)

Step	Description	Substep
1	❒ Install front 6S-0003-101 Cross Tube Assembly 18W on 6S-0004-1 Spreader Bar Assembly H-G 10	❒ AN6-10A ⅜-24 Bolt (1) ❒ NAS1149F0663P Washer (1) ❒ 6P-0005-5 Bushing (1) * MS21044N4 nuts on cross tube assembly face inside of seat pan * Place a 3/16-in plastic shim tool under left front AN6-10A bolt * Torque AN6-10A Bolt to 160-190 in-lb
2	❒ Install 6B-0012-101 Seat Bottom – Diaphragm 2	* Front pocket of diaphragm slides over front cross tube assembly
3	❒ Install rear 6S-0003-101 Cross Tube Assembly 18W	❒ 6P-0005-3 Bushing (1)
4	❒ Install 6S-0004-2 Spreader Bar Assembly H-G 10	❒ AN6-10A ⅜-24 Bolt (1) ❒ NAS1149F0663P Washer (1) ❒ 6P-0005-5 Bushing (1) ❒ 6P-0005-3 Bushing (1) * Torque AN6-10A Bolt to 160-190 in-lb * Reverse Torque wrench and turn counter clock wise to remove 3/16-in plastic shim tool

2. 6S-0001 Left Recline Assembly (Figure 22)

Step	Description	Substep
1	❒ Assemble 6P-0014-1 Gear Housing	❒ 6V-0007 Bearing – DU (1) ❒ 6P-0005-1 Bushing (2) ❒ 6V-0006 Washer – Teflon (5) ❒ 6P-0004-5 Pinion (1) ❒ 6P-0003 Rack (1) ❒ 6P-0009-1 Bearing – DU (2) ❒ 6W-0002-101 Torque Tube Weld Assy XXW
2	❒ Install 6P-0027-1 Gear Cover	❒ MS35206-226 6-32 Screw (2) ❒ 6V-0050 Spring - Tension (1) ❒ MS27039-08-08 8-32 Screw (1) ❒ AN340-8 8-32 Nut (1) ❒ AN4-7A ¼-28 bolt (2) ❒ NAS1149F0416P Washer (2) ❒ AN970-4 Large area washer (2) ❒ MS21044N4 ¼-28 Locking Nut (2) * Torque MS35206-226 screws to 7-9 in-lb * MS27039-08-08 screw must be flush with outside of 6P-0014 gear housing * AN340-8 nut – rotate 45-deg to tighten against 6P-0027 gear housing cover * Torque MS21044N4 nuts to 50-70 in-lb

3. 6S-0001 Right Recline Assembly (Figure 22)

Step	Description	Substep
1	❒ 6P-0014-2 Gear Housing	❒ 6V-0007 Bearing - DU
2	❒ Attach 6P-0014-2 Gear Housing to seat pan	❒ AN6-12A ⅜-24 Bolt (1) ❒ NAS1149F0663P Washer (1) ❒ AN4-7A ¼-28 Bolt (1) ❒ NAS1149F0416P Washer (1) ❒ NAS1149F0463P Washer (1) ❒ MS21044N4 ¼-28 Locking Nut (1) * Torque AN6-12A bolt to 160-190 in-lb * Torque MS21044N4 nuts to 50-70 in-lb
3	❒ Attach 6P-0014-1 Gear Housing to seat pan	❒ 6P-0009-1 Bearing – DU (1) ❒ 6P-0004-5 Pinion (1) ❒ AN6-12A ⅜-24 bolt (1) ❒ NAS1149F0663P Washer (1) ❒ AN4-7A ¼-28 Bolt (1) ❒ NAS1149F0416P Washer (1) ❒ NAS1149F0463P Washer (1) ❒ MS21044N4 ¼-28 Locking Nut (1) ❒ 6V-0006 Washer – Teflon (1) * Torque AN6-12A bolt to 160-190 in-lb * Torque MS21044N4 nuts to 50-70 in-lb * Place 6V-0006 Washer – Teflon over end of 6W-0002-101 Torque Tube Weld Assembly 18W * Lube cam surface of 6W-0002-101 Torque Tube Weld Assembly 18W with a metalworking lubricant (such as Accu-Lube block lubricant)
4	❒ Place seat pan on its right side	
5	❒ Install right side recline mechanism	❒ 6P-0005-1 Bushing (2) ❒ 6V-0006 Washer – Teflon (4) ❒ 6P-0009-1 Bearing – DU (1) ❒ 6P-0003 Rack (1) ❒ 6P-0004-5 Pinion (1)

3. 6S-0001 Right Recline Assembly (cont.)

Step	Description	Substep
6	❒ Install 6P-0027-2 Gear Cover	❒ MS35206-226 6-32 Screw (2) ❒ MS35206-241 8-32 Screw (1) * Torque MS35206-226 screws to 7-9 in-lb * Torque MS35206-241 Screw to 12-15 in-lb
7	❒ Place seat pan on its base	
8	❒ Install cover attaching hardware	❒ AN4-7A ¼-28 bolt (1) ❒ NAS1149F0416P Washer (1) ❒ AN970-4 Large area washer (1) ❒ MS21044N4 ¼-28 Locking Nut (1) * Torque MS21044N4 nuts to 50-70 in-lb

4. 6S-0014-101 Spring Plunger Assembly (Figure 22)

Step	Description	Substep
1	❒ Install 6S-0014-101 Spring Plunger Assembly	❒ AN4-12A ¼-28 Bolt (1) ❒ NAS1149F0416P (1) ❒ NAS1352-08-16P 8-32 Cap Screw (1) ❒ NAS1149F0463P Washer (1) ❒ MS21044N4 ¼-28 Locking Nut (1) * Torque NAS1352-08-16P Cap screw to 12-15 in-lb * Torque MS21044N4 nuts to 50-70 in-lb

5. 6P-0011 Recline Lever (Figure 22)

Step	Description	Substep
1	❒ Install 6P-0011-1 or 6P-0011-2 Recline Lever	❒ AN4-3A ¼-28 bolt (1) ❒ NAS1149F0463P Washer (1) * Apply Loctite 242 medium strength to threads of AN4-3A bolt * Torque AN4-3A bolt to 50-70 in-lb * 6P-0011 Recline Lever should be parallel to top of 6S-0004 Spreader Bar Assembly H-G 10

6. 6A-0003 Seat Frame Assembly (Figure 19)

Step	Description	Substep
1	❒ Place 6P-0003 Rack in a full forward position	
2	❒ Install 6S-0005 Seat Back Assembly	❒ AN4-13A ¼-28 bolt (4) ❒ NAS1149F0432P Washer (4) ❒ MS21083N4 ¼-28 Bolt (4) * Do not completely tighten the MS21083N4 nuts
3	❒ Place 6S-0005 Seat Back Assembly in full recline position	
4	❒ Torque MS210483N4 nuts in sequence	❒ Lower right ❒ Upper right ❒ Lower left ❒ Upper left * Torque MS21083N4 Nuts to 30-40 in-lb

7. Test Recline Mechanism

Step	Description
1	❒ Test recline mechanism in each locking position for proper operation per Oregon Aero document QWI-6I-0001 appendix A (Ref: Appendix A).

8. 6S-0001 Seat Base Assembly (Figures Figure 21 & Figure 22)

Step	Description	Substep
1	❒ Install 6A-0005-1 Assembly – Base Track Seat Left, or 6A-0005-2 Assembly – Base Track Seat Right	* 6P-0018 Lock Comb will be located on the same side as the 6P-0011 Recline Lever
2	❒ Install 6S-0002 Stop Assembly	❒ AN3-6A 10-32 Bolt (4) ❒ NAS1149F0363P Washer (4) ❒ MS21044N3 10-32 Locking Nut (4) * Torque MS21044N3 nut to 20-25 in-lb

9. 6A-0001 Seat Bottom Cushion Installation (Figure 18)

Step	Description	Substep
1	❒ Install bottom seat cushion assembly	6A-0006 Seat Cushion Bottom Assy – Thin, OR 6A-0007-1 Seat Cushion Bottom Assy – Medium, OR 6A-0008 Seat Cushion Bottom Assy – Thick, OR 6A-0007-3 Seat Cushion Bottom Assy – Medium – LCE (Optional)

11. Airworthiness Limitations Section

The Airworthiness Limitations section is FAA approved and specified maintenance required under Secs. 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA Approved.

No Airworthiness Limitations

12. Illustrated Parts List

The Illustrated Parts List (IPL) illustrates and lists approved spare parts for the following High-G Seat assemblies.

Part Number	Description
6A-0001-1	Seat Assembly – Left
6A-0001-2	Seat Assembly – Right
6A-0001-3	Seat Assembly – Left LCE (Optional)
6A-0001-4	Seat Assembly – Right LCE (Optional)
6A-0009-1	Rear Seat Cushion Bottom Assembly Left
6A-0009-2	Rear Seat Cushion Bottom Assembly Right
6A-0009-3	Rear Seat Cushion Bottom Assembly Left - LCE (Optional)
6A-0009-4	Rear Seat Cushion Bottom Assembly Right - LCE (Optional)
6A-0010-1	Rear Seat Cushion Back Assembly
6A-0010-3	Rear Seat Cushion Back Assembly - LCE (Optional)

12.1. Use of the IPL

1. Locate the part or subassembly containing the part in the illustrations.
2. Note the item number assigned to the part.
3. Refer to the parts list and locate the item number in the Figure / Item columns.

12.1.1 Abbreviations

Abbreviation	Description
Ref	Reference
A/R	As Required

12.2. Front Seat Assembly

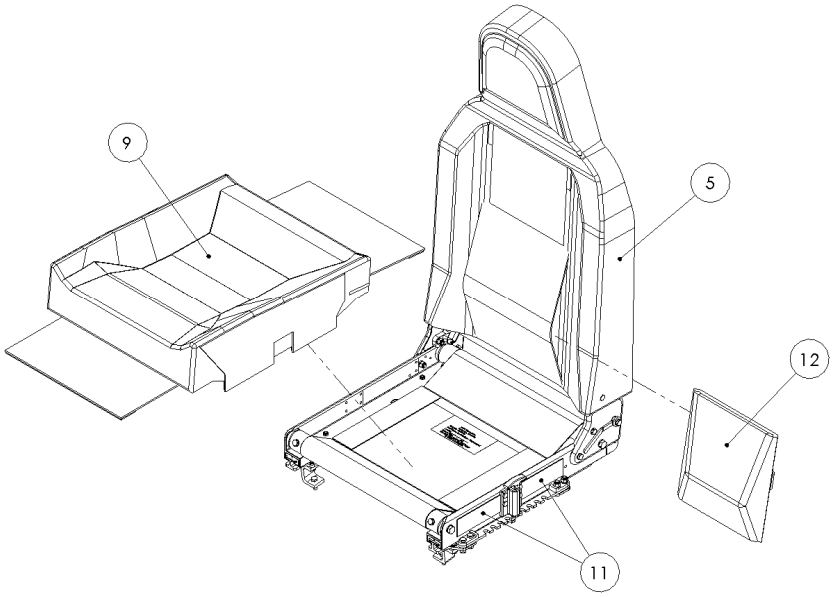


Figure 18 Front Seat Assembly

Figure Item	Part Number	Description	EFF Code	Units Per Assy
Figure 18 1	6A-0001-1	Seat Assembly – Left		Ref
-1A	6A-0001-2	Seat Assembly – Right		Ref
-1B	6A-0001-3	Seat Assembly – Left LCE (Optional)		Ref
-1C	6A-0001-4	Seat Assembly – Right LCE (Optional)		Ref
5	6A-0003-1	Seat Frame Assembly – Left – Cessna		1
-5A	6A-0003-2	Seat Frame Assembly – Right – Cessna		1
-5B	6A-0003-3	Seat Frame Assembly – Left – LCE (Optional)		1
-5C	6A-0003-4	Seat Frame Assembly – Right – LCE (Optional)		1
9	6A-0007-1	Seat Cushion Bottom Assembly – Medium		1
-9A	6A-0007-3	Seat Cushion Bottom Assembly – LCE (Optional)		1
-9B	6A-0006	Seat Cushion Bottom Assembly – Thin		1
-9C	6A-0008	Seat Cushion Bottom Assembly – Thick		1
11	6V-0100-3	1.5 IN Loop (Aplix – PS)		A/R
12	6A-0012	Lumbar Assembly		1

- Item not Illustrated

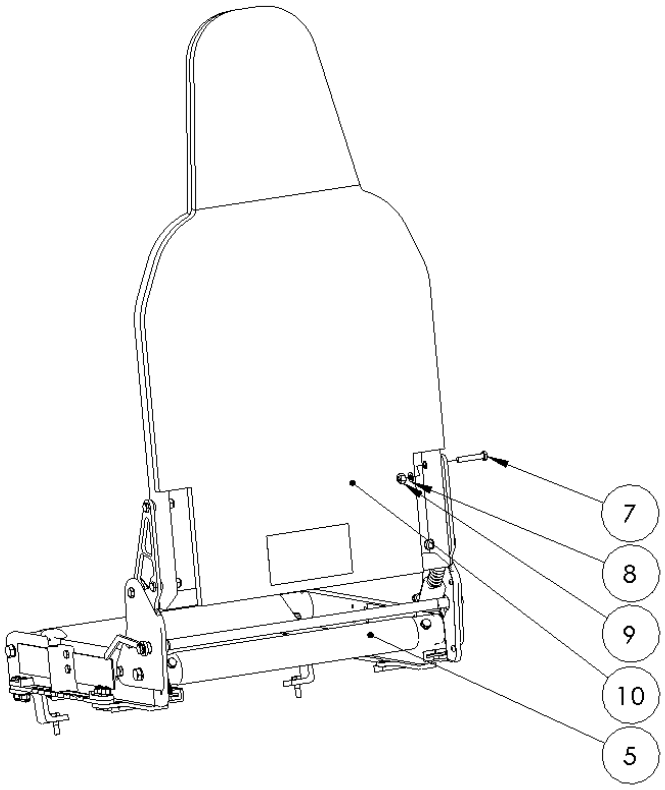


Figure 19 Front Seat Assembly

Figure Item	Part Number	Description	EFF Code	Units Per Assy
Figure 19 5	6S-0001-1	Seat Base Assembly – Left – Cessna		1
-5A	6S-0001-2	Seat Base Assembly – Right – Cessna		1
7	AN4-13A	Hex Head Bolt - ¼-28		4
8	NAS1149F0432P	Washer - Thin		4
9	MS21083N4	Locking Nut - ¼-28		4
10	6S-0005-1	Seat Back Assembly		1

- Item not Illustrated

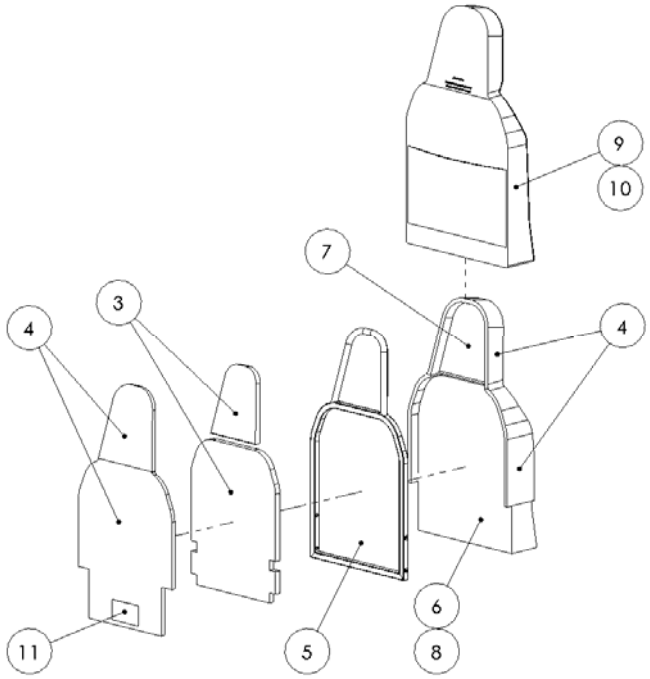


Figure 20 Front Seat Back Frame Assembly

Figure Item	Part Number	Description	EFF Code	Units Per Assy
Figure 20 1	6S-0005-1	Seat Back Assembly		Ref
-1A	6S-0005-3	Seat Back Assembly – LCE (Optional)		Ref
3	6S-0005-5	Foam – Black – 6V-0014		A/R
4	6S-0005-7	Polyfoam HR 150 – 6V-0026		A/R
5	6S-0030-101	Seat Back Frame Assembly		1
6	6B-0006-1	Foam Assembly Seat Back H-G 10		1
7	6B-0006-3	Foam Assembly Seat Headrest H-G 10		1
-8	6B-0006-5	Foam Assembly Seat Back H-G 10 – LCE (Optional)		1
9	6U-0004-X	Cover Seat Back Assembly		1
-10	6U-0196-1	Front Back Cover Assembly – Cessna LCE (Optional)		1
11	6L-B0006	Label, Foam Assembly Seat Back H-G 10		1

- Item not Illustrated

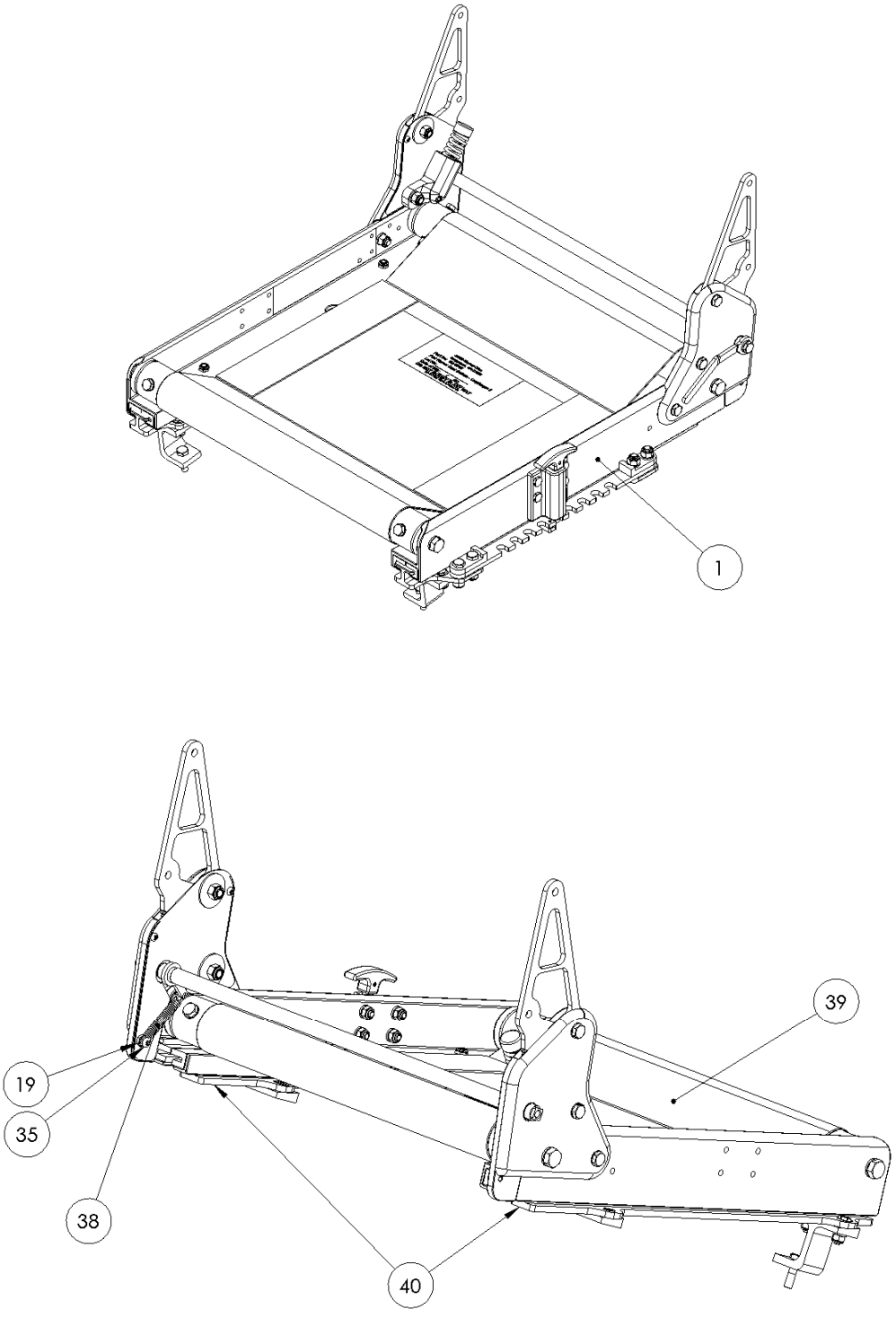


Figure 21 Seat Base Assembly

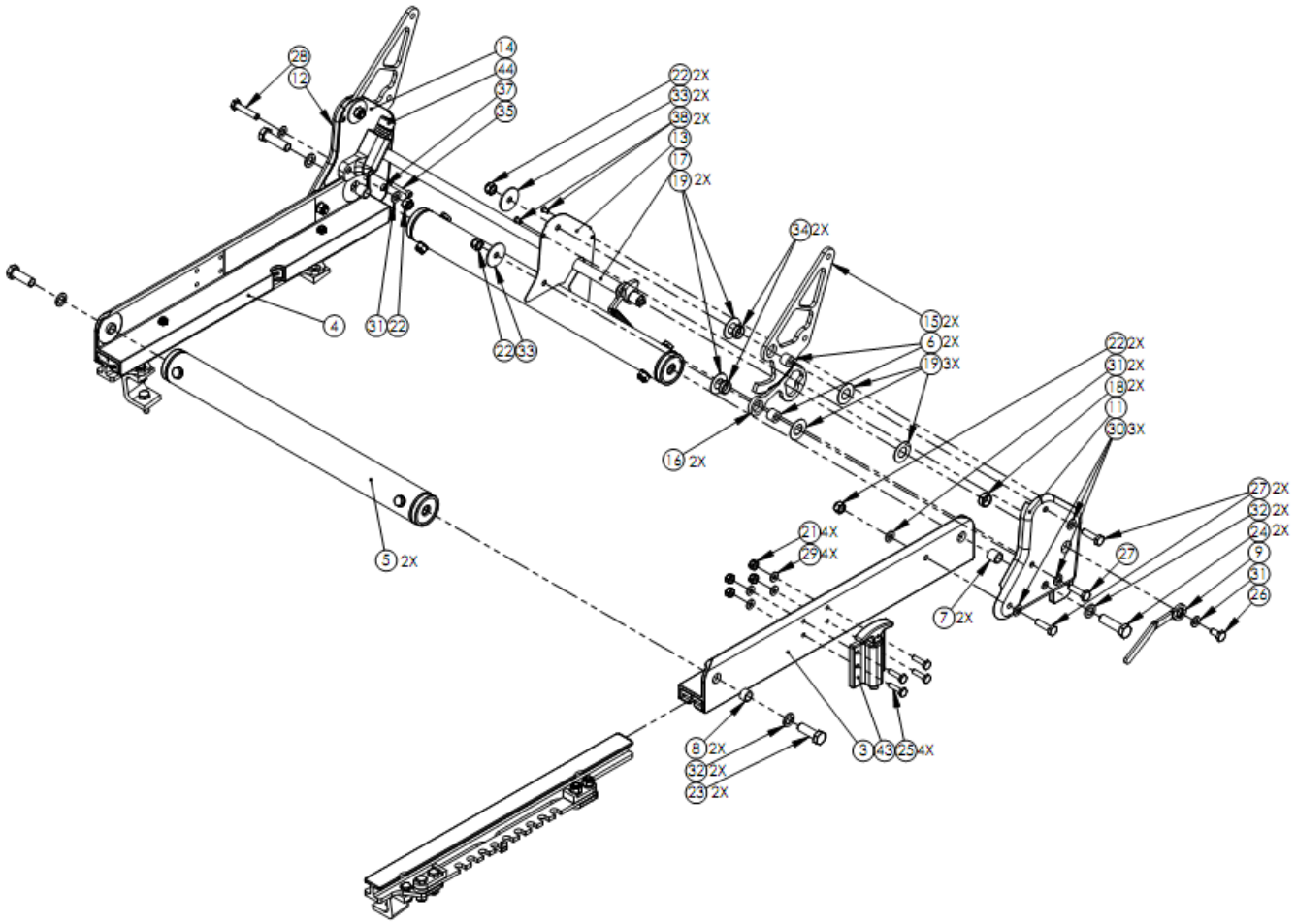


Figure 22 Seat Base Assembly

Figure Item	Part Number	Description	EFF Code	Units Per Assy
Figure 21 1	6S-0001-1	Seat Base Assembly – Left – Cessna		Ref
-1A	6S-0001-2	Seat Base Assembly – Right – Cessna		Ref
19	AN340-8	Nut – 8-32		1
35	MS27039-08-08	Screw – 8-32		1
38	6V-0050	Spring – Tension		1
39	6B-0021-101	Seat Bottom – Diaphragm 2		1
40	6A-0005-1	Assembly – Base Track		1
-40A	6A-0005-2	Assembly – Base Track		1

Figure 22 3	6S-0004-1	Spreader Bar Assembly H-G 10		1
4	6S-0004-2	Spreader Bar Assembly H-G 10		1
5	6S-0003-101	Cross Tube Assembly XXW		2
6	6P-0005-1	Bushing		2
7	6P-0005-3	Bushing		2
8	6P-0005-5	Bushing		2
9	6P-0011-1	Recline Lever		1
-10	6P-0011-2	Recline Lever		1
11	6P-0014-1	Gear Housing		1
12	6P-0014-2	Gear Housing		1
13	6P-0027-1	Gear Cover		1
14	6P-0027-2	Gear Cover		1
15	6P-0003	Rack		2
16	6P-0004-5	Pinion		2
17	6W-0002-101	Torque Tube Weld Assembly XXW		1
18	6V-0007	Bearing – DU		2
19	6V-0006	Washer – Teflon		10
21	MS21044N3	Nut – Locking – 10-32		4
22	MS21044N4	Nut – Locking – ¼-28		6

- Item not Illustrated

Figure Item	Part Number	Description	EFF Code	Units Per Assy
23	AN6-10A	Bolt – Hex Head – ⅜-24		2
24	AN6-12A	Bolt – Hex Head – ⅜-24		2
25	AN3-6A	Bolt – Hex Head – 10-32		4
26	AN4-3A	Bolt – Hex Head – ¼-28		1
27	AN4-7A	Bolt – Hex Head – ¼-28		5
28	AN4-12A	Bolt – Hex Head – ¼-28		1
29	NAS1149F0363P	Washer – Flat		4
30	NAS1149F0416P	Washer – Thin		6
31	NAS1194F0463P	Washer – Flat		4
32	NAS1149F0663P	Washer – Flat		4
33	AN970-4	Washer – Flat – Large Area		3
34	6P-0009-1	Bearing – DU		4
35	NAS1352-08-16P	Socket Head Cap Screw – 8-32		1
37	MS35206-241	Screw – Pan Head – 8-32		1
38	MS35206-226	Screw – Pan Head – 6-32		4
43	6S-0002	Stop Assembly		1
44	6S-0014-101	Spring Plunger Assembly		1

- Item Not Illustrated

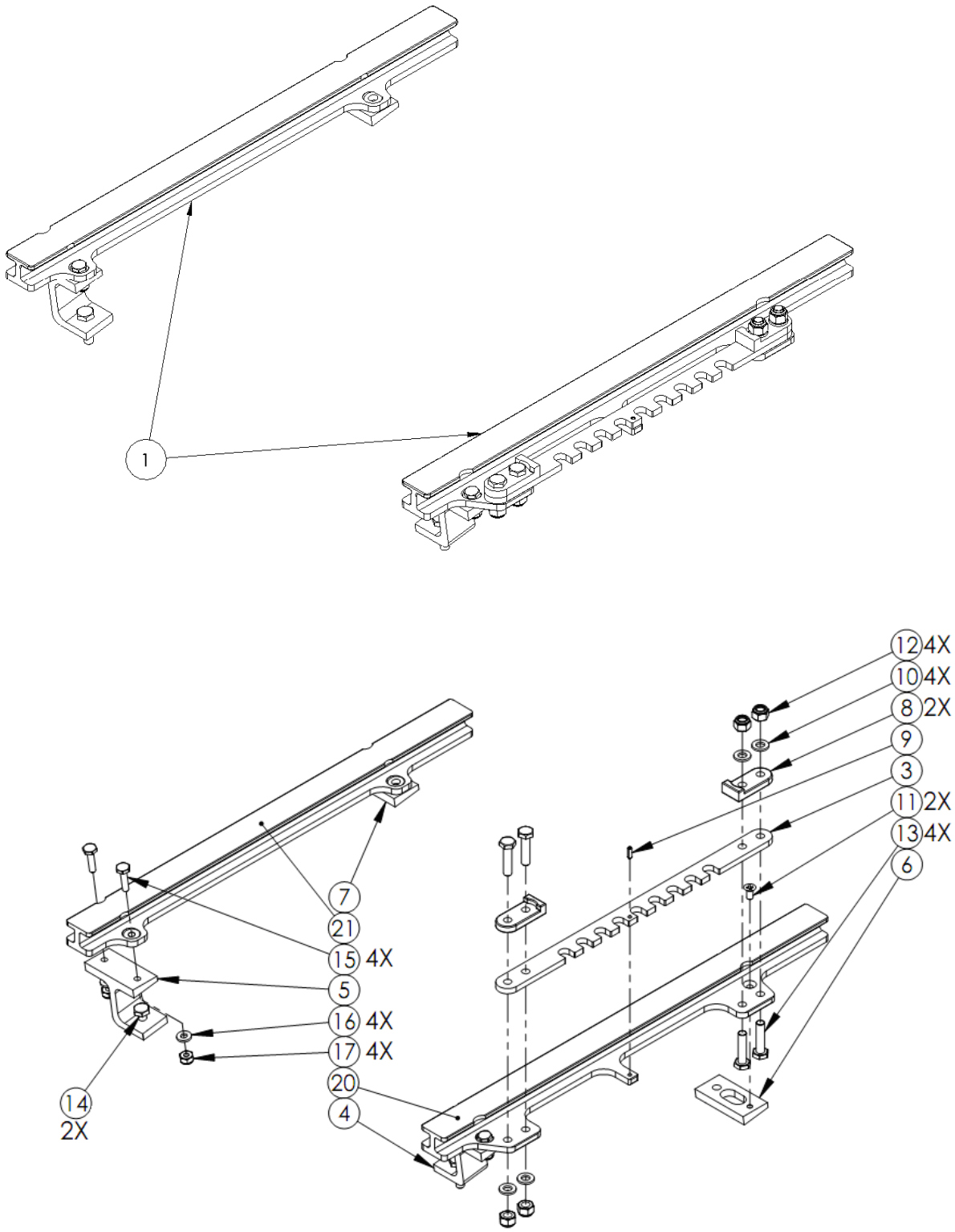


Figure 23 Base Track Assembly

Figure Item	Part Number	Description	EFF Code	Units Per Assy
Figure 23 1	6A-0005-1	Assembly Base Track Seat Left		Ref
-1A	6A-0005-2	Assembly Base Track Seat Right		Ref
3	6P-0018	Lock Comb		1
4	6P-0019-1	Front 8 Degree Support		1
5	6P-0019-2	Front 8 Degree Support		1
6	6P-0020-1	Back 8 Degree Support		1
7	6P-0020-2	Back 8 Degree Support		1
8	6P-0026	Lock Stop		2
9	6V-0003	Pin – Spring lock		1
10	NAS1149F0463P	Washer - Flat		4
11	MS24694S48	Screw – Flat Head – 10-32		2
12	MS21044N4	Nut – Locking ¼-28		4
13	AN4-10A	Bolt – Hex Head – ¼-28		4
14	AN4-7A	Bolt – Hex Head – ¼-28		2
15	AN3-6A	Bolt – Hex Head – 10-32		4
16	NAS1149F0363P	Washer – Flat		4
17	MS21044N3	Nut – Locking – 10-32		4
-18	6P-0029-2	Seat Track 8 Degree w/ Stop		1
-19	6P-0030-1	Seat Track 8 Degree		1
20	6P-0029-1	Seat Track 8 Degree w/Stop		1
21	6P-0030-2	Seat Track 8 Degree		1

- Item Not Illustrated

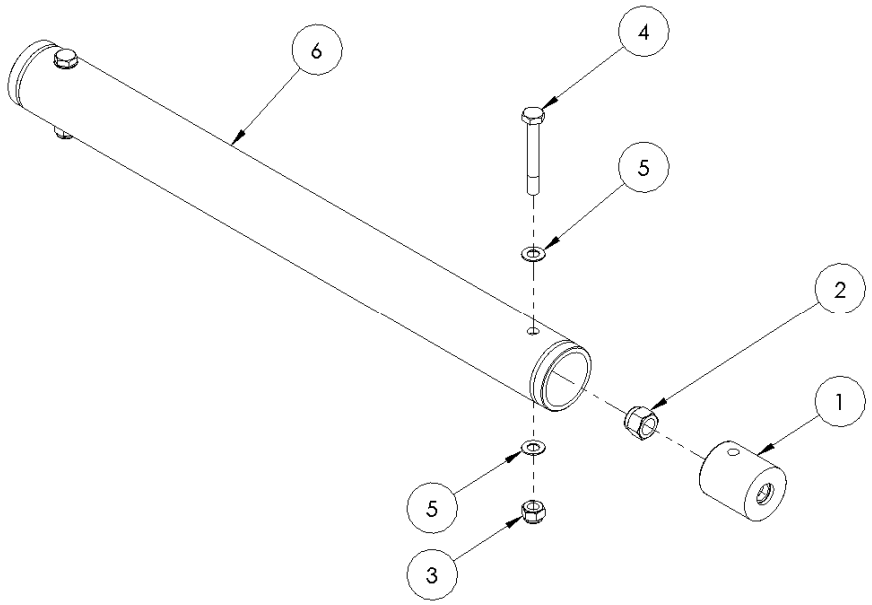


Figure 24 Cross Tube Assembly

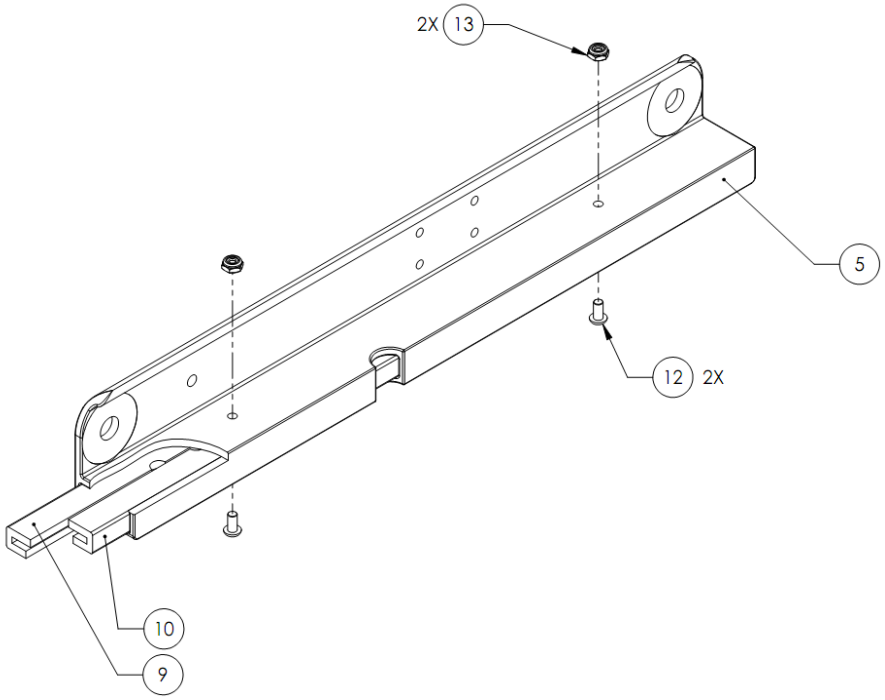


Figure 25 Spreader Bar Assembly

Figure Item	Part Number	Description	EFF Code	Units Per Assy
Figure 24	6S-0003	Cross Tube Assembly XXW		Ref
1	6P-0027	Plug		2
2	MS21044N6	Lock Nut ⅜-24		2
3	MS21044N4	Lock Nut ¼ -28		2
4	AN4-17A	Bolt Hex Head ¼ -28		2
5	NAS1149F0432P	Washer Steel		4
6	6P-0022-101	Cross Tube 18W		1

Figure 25 1	6S-0004-1	Spreader Bar Assembly H-G 10		Ref
-1A	6S-0004-2	Spreader Bar Assembly H-G 10		Ref
5	6P-0021-1	Spreader Bar 1		1
-6	6P-0021-2	Spreader Bar 1		1
-7	6P-0021-3	Spreader Bar 1		1
-8	6P-0021-4	Spreader Bar 1		1
9	6P-0023	Linear Guide Seat Track		1
10	6P-0028-1	Linear Guide Seat Track 2		1
-10A	6P-0028-2	Linear Guide Seat Track 2		1
12	MS35207-261	Screw – Pan Head – 10-32		2
13	MS21083N3	Nut – Locking – 10-32		2

-Item Not Illustrated

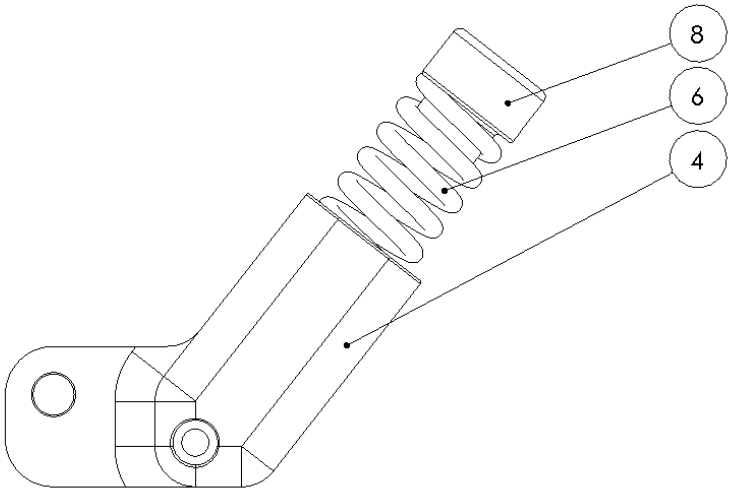


Figure 26 Spring Plunger Assembly

Figure Item	Part Number	Description	EFF Code	Units Per Assy
Figure 26	6S-0014	Spring Plunger Assembly		Ref
4	6P-0016-1	Spring Retainer		1
6	6V-0030	Spring – Compression		1
8	6P-0017	Plunger Button		1

12.3. Rear Seat Assembly

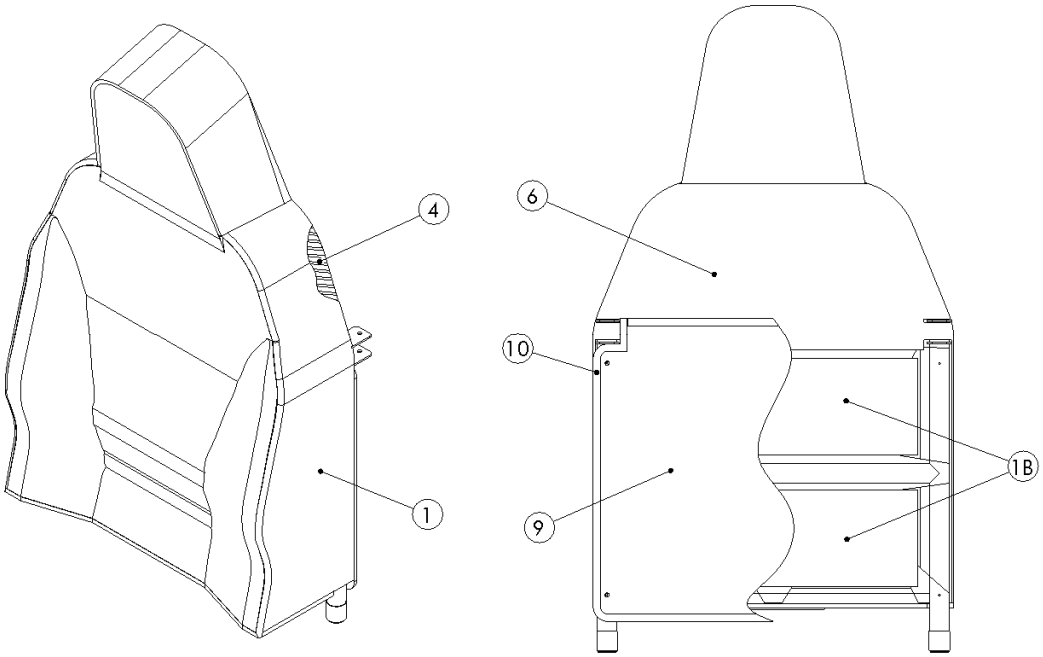


Figure 27 Rear Seat Cushion Back Assembly

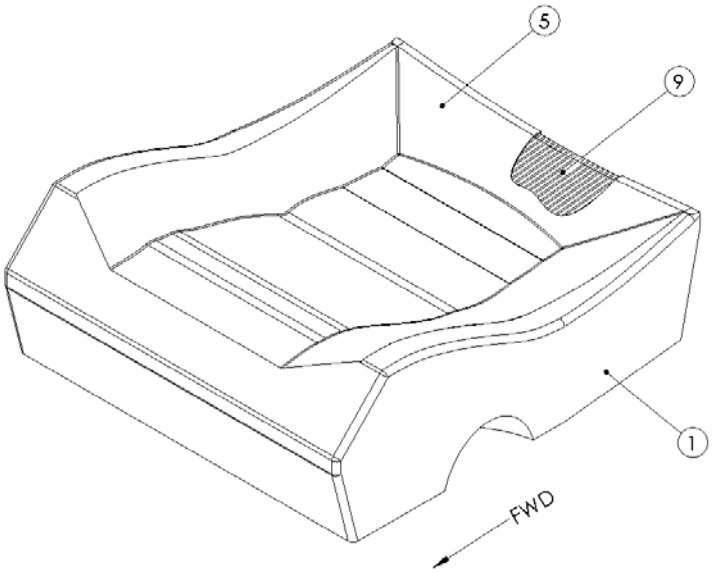


Figure 28 Rear Seat Cushion Bottom Assembly

Figure Item	Part Number	Description	EFF Code	Units Per Assy.
Figure 27 1	6A-0010-1	Rear Seat Cushion Back Assembly		Ref
-1A	6A-0010-3	Rear Seat Cushion Back Assembly - LCE (Optional)		Ref
1B	6A-0010-5	Foam Black – 6V-0014 -7		Ref
4	6B-0008-1	Foam Assembly – Aft Seat Back		1
-4A	6B-0008-3	Foam Assembly – Aft Seat back - LCE (Optional)		1
6	6U-0006	Cover Rear Seat Back Assembly		1
-6A	6U-0198	Cover Rear Seat Back Assembly - LCE (Optional)		1
9	6B-0022-X	Baggage Panel Assembly – Cessna		1
-9A	6B-0022-17	Baggage Panel (LCE – Optional)		1
10	SSPQ-04	Avdel Q Rivet		4

Figure 28 1	6A-0009-1	Rear Seat Cushion Bottom Assembly Left		Ref
-1A	6A-0009-2	Rear Seat Cushion Bottom Assembly Right		Ref
-1B	6A-0009-3	Rear Seat Cushion Bottom Assembly Left - LCE (Optional)		Ref
-1C	6A-0009-4	Rear Seat Cushion Bottom Assembly Right - LCE (Optional)		Ref
5	6U-0005-X	Cover Rear Seat Bottom Assembly Left		1
-5A	6U-0005-X	Cover Rear Seat Bottom Assembly Right		1
-5B	6U-0197-1	Cover Assembly Rear Bottom – LCE – Left (Optional)		1
-5C	6U-0197-2	Cover Assembly Rear Bottom – LCE – Right (Optional)		1
9	6B-0005-1	Foam Assembly – Aft Seat Bottom Left		1
-9A	6B-0005-2	Foam Assembly – Aft Seat Bottom Right		1
-9B	6B-0005-3	Foam Assembly – Aft Seat Bottom Left – LCE (Optional)		1
-9C	6B-0005-4	Foam Assembly – Aft Seat Bottom Right – LCE (Optional)		1

- Item Not Illustrated

Appendix A

Oregon Aero, Inc.
34020 Skyway Drive
Scappoose, OR 97056

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Installation Preparation Instructions
QWI-6I-0001

Document No.: QWI-6I-0001

	Name	Signature	Date
Written	Christi Loya	CLL	3/27/06
Approved	Steve Hooper	SJH	3/27/06

OREGON AERO®

Installation Preparation Instructions
QWI-6I-0001
Rev. B

LIST OF REVISIONS

Rev.	Description	Author	Date	Approved
IR	Initial Release	Christi Loya	3/27/06	SJH
A	Added information to installation information and reformatted document	Christi Loya	3/3/06	SJH
B	Updated Section 1 Corrected Typo of Stated Revision Level (IR was meant to read A)		4-7-11	

1.0 PURPOSE

The Oregon Aero installation drawing 6I-0001 Rev (K), drawing note 11, specifies that the **High-G®** 10 Safety Seat (left-side Seat Assy 6A-0001-1 and right-side Seat Assy 6A-0001-2) is to be installed on a flat surface. The purpose of this document is to define a flat surface, the correct conditions for installation, and how to evaluate the success of a seat installation.

2.0 PROCEDURE

2.1 New Installation:

2.1.1 Pre-Installation Test:

The purpose of the Pre-Installation Test is to verify that that the **High-G®** 10 Safety Seat was not damaged during transit.

2.1.1.1 Place the seat on a flat work surface. A "flat" surface is a plane surface that can be mathematically fixed in space by three points that do not lie on a line. Actual surfaces are never perfectly flat and are in fact warped or twisted out of plane. A surface that possesses less than 0.0075°/in. over a 15.25-in.-span is considered sufficiently flat.

2.1.1.2 Perform the Seat Recline Functional Test as described in Appendix A.

2.1.1.3 If the seat does not pass the Seat Recline Functional Test, please contact Oregon Aero for technical assistance.

2.1.1.4 If the seat passes the Seat Recline Functional Test, begin the installation of the seat as outlined in the next section.

2.1.2 Installation of a High-G® 10 Safety Seat:

2.1.2.1 Verify that the angular difference between the seat rail position and the airplane floor is less than 0.25°. This difference can be measured with an inclinometer or by placing a check fixture on the airplane floor surface and measuring the gap under one of the front seat tracks. A maximum gap under one of the front seat interface points should be less than 0.050 in., which corresponds to the 0.25° tolerance identified above. The check fixture should be fabricated with four pins corresponding to the attachment bolt positions. The fore/aft distance between these pins is 10.88 in. and the lateral distance is 13.25 in.

2.1.2.2 Once it has been verified that the airplane floor meets the requirements outlined in section 2.1.2.1, install the seat.

2.1.2.3 Perform the Seat Recline Functional Test outlined in Appendix A.

2.1.2.4 If the seat passes, this is a successful installation and requires no further action.

2.1.2.5 If the seat does not pass the Seat Recline Functional Test, repeat steps 2.1.2.1 through 2.1.2.4. If the seat does not pass the Seat Recline Functional Test on the second attempt, please contact Oregon Aero for technical assistance.

2.2 Previously Installed High-G® 10 Safety Seat Evaluation:

2.2.1 Perform the Seat Recline Functional Test on the installed seat as outlined in Appendix A.

2.2.2 If the seat passes, this is a successful installation and requires no further action.

2.2.3 If the seat does not pass, follow the steps outline in Section 2.1.2. “Installation of a Seat”.

APPENDIX A

Seat Recline Functional Test Instructions

The operation of the Oregon Aero **High-G®** 10 Safety Seat recline mechanism is checked using the steps contained in the following instructions.

Step	Instruction
1	Place the **High-G®** 10 Safety Seat on a flat* surface
2	Lift the recline lever and place the seat back in the fully reclined position. Verify that the recline mechanism is engaged by noting that the recline lever is in the "down" position and that the seat back resists a small fore/aft load.
3	Lift the recline lever and move the seat back forward, let go of the lever, and observe how the recline mechanism engages itself. The recline mechanism is spring loaded and the recline lever should "snap" in place.
4	Repeat step 3, for each of the remaining 6 adjustment positions.

Appendix B

Oregon Aero, Inc.
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Oregon Aero Specification
Decals, Labels and Placards

Document No.: 6-LS001

	Name	Signature	Date
Written	Harpreet Chadha	HSC	3/4/2011
Checked	Joe Louie	JL	3/4/2011
Approved	Steve J. Hooper, Ph.D	SJH	3/4/2011

LIST OF REVISIONS

Rev.	Description	Written	Checked	Approved	Date
IR	Initial Release	HSC	JL	SJH	3/4/2011
A	Added header information				4-7-11

Table of Contents

1. Introduction

This specification describes the procedures and engineering requirements for the creation of decals, labels and placards. The scope of this specification includes plastic decals and/or silk screening as well as thermal transfer labels.

1.1. Order of precedence

This specification describes the installation procedures for decals, labels and placards. However, in the event of a conflict between instructions, or data, contained in this specification and those contained in the drawing referring to this specification, the specifications contained on engineering drawing calling out this procedure supersede and take precedence over those contained in this document.

1.2. Pressure sensitive adhesive specification

Decals, labels and placards shall be installed with 2.3-mil 3M 200MP / Clear pressure sensitive adhesive unless a specific adhesive is specified on the applicable Bill of Materials.

2. References

A-A-2904 Thinner, Paint, Mineral Spirits, Regular and Odorless

A-A-857B Thinner, Dope and Lacquer (Cellulose Nitrate)

A-A-59485 Plastic Material, Pressure Sensitive Adhesive for Aerospace Identification

GG-P-455 Plates and Foils, Photographic (Photosensitive Anodized Aluminum)

MIL-DTL-19834 Plates, Identification of Instruction, Metal Foil, Adhesive Backed, General Specification For

MIL-M-43719C Decal, Elastomeric Pigmented Film, For Use on Exterior Surfaces

MIL-P-6906 Plates, Information and Identification

MIL-P-15024 Plates, Tags and Bands for Identification of Equipment

MIL-PRF-680C Degreasing Solvent

TT-I-735a Isopropyl Alcohol

TT-N-95b Naptha; Aliphatic

3. Materials

3.1. Solvents

A. Methyl n-Propyl Ketone

B. Barton Solvent A 2904

C. TT-I-735a Isopropyl Alcohol

3.2. Wiping material

3.2.1 Cloth

A. Cheese cloth, 150 gauge, crushpak

B. Cheese cloth, 3 ply, 8 x 9

C. Rymplecloth # 301 (product of American Fiber & Finishing)

D. Wiping cloth, white, oil-free

3.2.2 Paper

A. Kimtex®, 33560, blue wipes (product of Kimberly-Clark)

B. Wiping cloth, nonwoven, 12 x 21

C. Wiping cloth, white, oil-free

4. Requirements and Procedures

4.1. Color and Usage

Color and usage of decal, label and placard materials are controlled by the engineering drawing that call-out this specification.

4.2. Cleaning

4.2.1 General

A. Clean wiping materials and clean solvents shall be used during cleaning operations.

B. Solvents shall be applied to the clean wiping materials and not to the surface to be cleaned.

C. Solvent cleaned surfaces shall be dry and free of all visible soils. Iridescent surfaces are evidence of incomplete cleaning.

4.2.2 Cleaning materials

4.2.2.1 Facilities

A. Cleaning operations shall be performed in well ventilated areas. Respirators should be worn during all cleaning operations but are required when cleaning in closed areas.

4.2.2.2 Equipment

A. All solvents shall be considered flammable and shall not be exposed to flame or other ignition sources under any circumstances.

B. Solvents shall be poured from safety cans or other approved containers.

4.2.2.3 Solvents

A. The solvents listed in Section 3.1 shall be used.

4.2.3 Procedure

A. Wipe off excess oil and/or dirt from the application surface with dry clean wiping material.

B. Apply solvent to clean wiping material. Note, the wiping material should not be wet to the point of dripping.

C. Wipe the surface with the wetted wiping material as required to dissolve and remove dirt. Apply cleaning efforts to a sufficiently small area so that the surface being cleaned remains damp or wet.

D. Immediately wipe the damp or wet surface with dry clean wiping material.

E. Repeat steps B) thru D) until there is no evidence of dirt on the drying cloth.

4.3. Decal, Label, or Placard Installation Procedure

A. Cut decals, labels or placards, to size after ink is thoroughly dry.

B. Clean the surface to which the decal, label, or placard, will be applied as per the instructions described in Section 4.2.3. It must be dry and lint free. Remove all dust, lint, chips, shavings, etc., with a vacuum cleaner where necessary.

C. Apply the decal, label or placard as soon as possible after cleaning and drying the surface.

Note: If solvent cleaned surfaces are not processed within 12 hours, they shall be cleaned again before processing.

D. Remove the protective backing and carefully position the decal, label, or placard, starting at one end and progressively applying contact pressure toward the other end. Take care to avoid wrinkling or air entrapment.

E. Use a rubber roller to press the decal, label, or placard, firmly in place.

F. Silkscreened decals, labels, and placards on vinyl or polyester shall be laminated with a clear polyester film. Coat exposed edges, which are subject to delamination, with clear urethane paint after installation, as per applicable engineering specifications.