Aviation Fabricators
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INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

For

Beech 90 Series Aft Jump Seat Installation Kits

Document No.: AF-521

Revision "B"

Revision Date: 10/01/19

Applicable to:

Textron Aviation models C90, C90A, C90GT, C90GTi, and E90

Modified by FAA STC SA00635WI

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 Beech 90 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
IR	All	Initial Release	07/20/11	GRL
A	All	*Removed p/n's from OEM part in Figure 1.0B due to other alternate p/n's available, p7	09/12/13	JRL
B	All	*Added Figure 1.0C for Optional Inboard Armrest, p 8 *Added "Optional Inboard Armrest Removal and Installation" paragraph in Section 9.0, p 14	10/01/19	JRL

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 aft jump seat installation kit, per installation numbers 32-0210K-XX, when installed in accordance with Aviation Fabricators design data included on STC Data List AF-251-4 and per Supplement Type Certificate (STC) SA00635WI.

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 aft jump seat kit assemblies, as installed per the Aviation Fabricators STC Data List AF-251-4. For limitations and procedures not contained in this supplement, consult the basic Airplane Maintenance Manual.

DATA

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

STC SA00635WI
STC Data List: AF-251-4.

Installation: STC Data List AF-251-4
D-10677 for RH Aft Jump Seat Installation Kit
D-10678 for Oxygen System Installation Kit

Parts: Refer to Part number 32-0210K-30 Beech RH Aft Jump Seat Installation Kit, as listed on respective drawings per STC Data List AF-251-4.

The installation of the new aft jump seat requires the installation of floor boards, side wall parts, and the oxygen system installation. The new seat is installed on to floor fittings that are attached to the floor board panels and the seat is attached at the outboard points with “U” brackets into the side wall support. The restraint system is attached to floor fittings on the aft floorboard. The harness is looped through a footman loop attached to the aft bulkhead. Additional outlets for the plug in type oxygen masks are added with a new overhead escutcheon.

Design Change Control
All data and changes to the parts and assemblies will be tracked per STC Data List AF-251-4 Rev IR or later approved revision.

Applicable Aircraft
Textron C90, C90A, C90GT, C90GTi, and E90 Aircraft

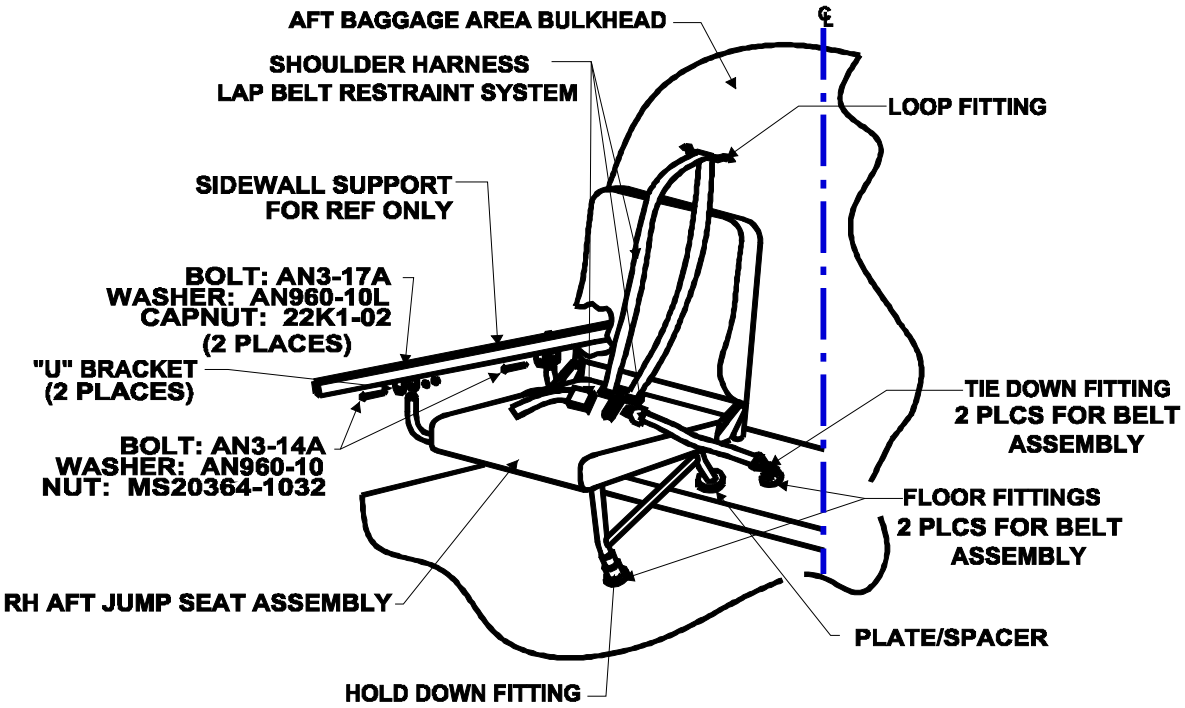

Figure 1.0A

Oxygen System Installation

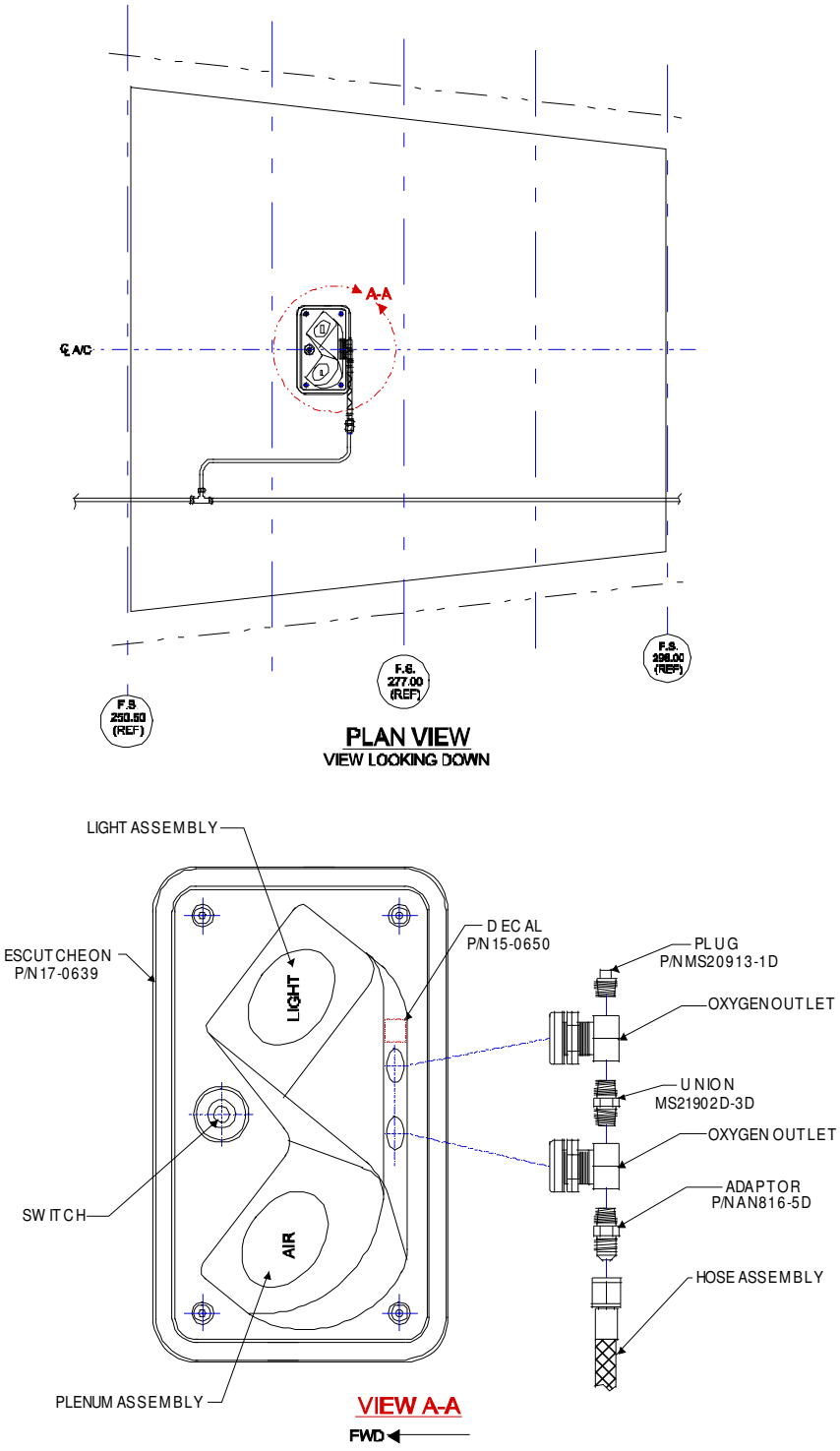

Figure 1.0B

Optional Inboard Armrest

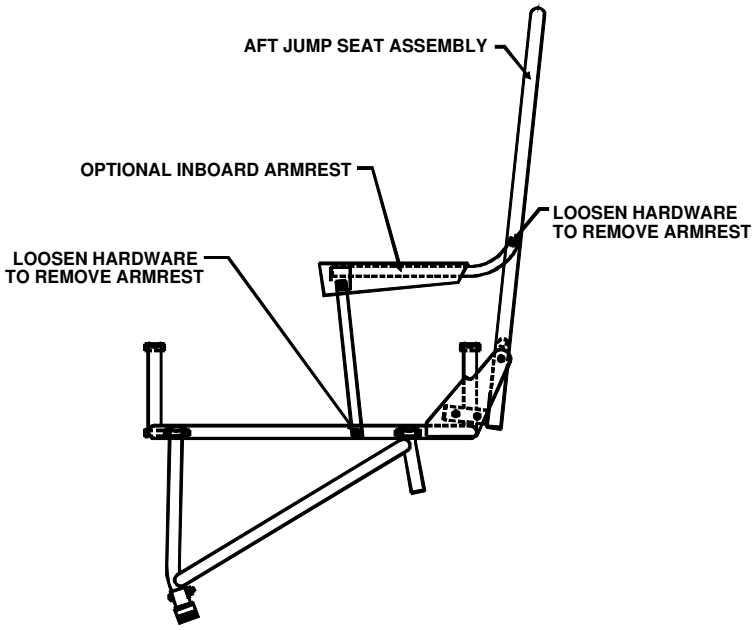

Figure 1.0C

2.0 INSPECTION REQUIREMENTS AND OVERHAUL SCHEDULE

1. To comply with 14 CFR Part 23.1529, continue the seat installation on the same inspection and maintenance schedule used per the Hawker Beechcraft Maintenance Manual for passenger seating.

    a. The new seat requires no service other than inspection at normal inspection interval of 200 hours.

    b. The safety belts require no service other than inspection at Phase 1 & 3 Inspection of 200 hours or 24 months whichever occurs first.

    c. Perform a detailed visual inspection of the seat bottom and back cushions and the covering of the seat assembly to detect apparent or obvious defects or irregularities.

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

Visually inspect the covering assemblies for holes, punctures, and tears. If the damage to the covering is holes smaller than ½" 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 covering assemblies outside of the described limits will require them to be replaced.

d. Visually inspect the seat assembly 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.

   Replace the bottom diaphragm if two cracks or deformations are found within a 4" diameter circle. If a tear or cut is found with a maximum 6" length, replace the diaphragm.

   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 seat 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 seat 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.

e. The additional oxygen outlet is to be added to the normal aircraft inspection system at Phase 1 & 3 Inspection of 200 hours or 24 months whichever occurs first.

Annual and/or 200 hour inspection

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 foot fittings for damage, security, and function.				
AFI-104	e.	Inspect seat frame for damage, and corrosion.				
AFI-105	f.	Inspect overall seat for fit and function.				
AF-106	g.	Inspect oxygen mask and outlet.				
AFI-107	h.	Function Test Oxygen Mask and Outlet assembly.				

A. Continue the new aft jump seat assembly and restraint system on the same inspection and maintenance schedule used per the Hawker Beechcraft Maintenance Manual for passenger seats.

B. Continue the additional oxygen outlet installation on the same inspection and maintenance schedule used per the Hawker Beechcraft Maintenance Manual for the oxygen system.

3.0 DIMENSION AND ACCESS

The installation of the new seat installation kit 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

NOTE: WEIGHTS INCLUDE OXYGEN SYSTEM INSTALLATIONS, AND UPHOLSTERED SEATS

**Refer to aircraft flight manual for occupant weight and balance calculations.

KIT NO.	WEIGHT LB.	H-ARM (IN)	H-MOMENT (LB – IN)
32-0210K-30 (RH ONLY) w/ -31 kit	+47	+280	+13160

Upholstery allowance is 5 lbs per seat.

6.0 TOWING AND TAXIING

No change.

7.0 PARKING AND MOORING

No change.

8.0 PLACARDS AND MARKINGS

Up to 5 placards are required in conjunction with this modification:

1. Placard P/N 15-0288 is to be installed just below the RH aft window.

Figure 8.0A

2. Placard P/N 32-0210-22 is to be installed on the aft side of the LH aft divider in plain sight of the seat occupant.

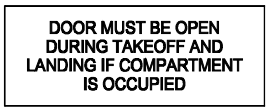

Figure 8.0B

3. Placard P/N 32-0210-52 is to be installed on the aft bulkhead center line just above W.L. 119.0

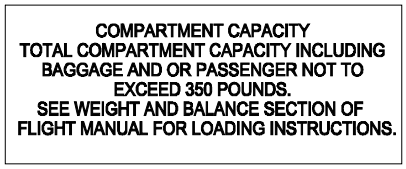

Figure 8.0C

4. Placard P/N 32-0210-23 is to be installed on the aft side of the RH aft divider in plain sight of the seat occupant.

Figure 8.0D

5. Decal P/N 15-0650 is to be installed on the overhead escutcheon near the oxygen outlets in plain view of the seat occupant.

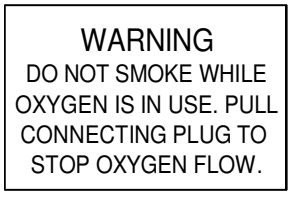

Figure 8.0F

9.0 SERVICE INFORMATION

Typical Seat Service Instructions:

A. Seat Upholstery Cleaning:

1. Remove seat back and seat bottom cushion assemblies from seat assembly.
2. Clean the cushions in accordance with instructions issued by the company responsible for the upholstery covering 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 seat for fit and function.

Note: Limit the cleaning area of the aft jump seats them only so that the cleaner used will not affect the fire retardant properties of any other components in the aircraft.

B. Oxygen System Service Instructions:

See Section 11.0

Typical Seat Maintenance Instructions:

Seat Assembly:
The aft jump seats are installed on to existing floor fittings that are attached to the floor board panels and attached at the outboard points with "U" brackets into existing side wall supports. See Figure 1.0.

Seat Removal:
To remove the seat from the aircraft: (1) remove the nut, bolt, and washer from the outboard "U" bracket that attaches the seat to the sidewall support, and (2) then lift the hold down fitting keeper to remove the leg from the floor board fitting.

The "U" bracket can be removed by loosening the vertical bolt, nut, and washer that goes through the sidewall support.

Seat Installation:
To install the seat into the aircraft: (1) attach the hold down fitting into the floor board fitting, (2) attach the "U" bracket to the sidewall support using a bolt, nut,

and washer, and (3) attach the seat's outboard fittings into the "U" bracket and secure with a bolt, nut, and washer.

Restraint System:
The seat belt of the restraint system is removed by unhooking the tie down fittings from the floor board fittings. The shoulder harness is removed from the loop fitting attached to the aft bulkhead. Reverse this procedure to install the restraint system. See Figure 1.0.

Cushions
Seat back and seat bottom cushion assemblies are removed by lifting the back cover from over the seat back frame or by simply pulling the cushion away from the Velcro on the seat frame, respectively. The seat bottom and seat back cushions should weigh no more than 10 lbs each. All covering and upholstery materials must comply with 14 CFR 23.853.

Optional Inboard Armrest Removal and Installation:
The optional inboard armrest is can be removed as desired by loosening the attaching hardware at two points as shown in Figure 1.0C. It can be installed by using the same hardware and tightening into place at two the same two points.

Typical Oxygen System Maintenance Instructions:

Oxygen System:
The passenger oxygen mask is an airline conical, constant flow type. A shut off valve and regulator, located on the oxygen cylinder located aft of the aft pressure bulkhead, controls the flow of oxygen to the crew and passenger outlets. The shutoff valve is actuated by a push-pull type control located overhead between the pilot and copilot seats. The regulator is an altitude compensated, constant flow type which supplies low pressure oxygen through the system plumbing to the outlets.

See Section 35-00-00 of the Beechcraft King Air 90 Series Maintenance Manual for oxygen system maintenance instructions.

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 aft jump seat installation kits installed by this STC.

11.0 TROUBLESHOOTING INFORMATION

Refer to the existing Aircraft Maintenance Manual for troubleshooting the aft jump seat kit, and oxygen system that is required beyond the information found on the installation drawings D-10677 and D-10678.

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.