

**Aviation Fabricators Inc.
805 North Fourth Street
Clinton, MO. 64735**

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INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

For

Textron Aviation Inc. B300 Drink Rail and Table Installations

Document No.: AF-665

Revision "A"

Revision Date: 10/17/2024

Applicable to:

Textron B300, B300C

Series Aircraft

STC Number: SA01101DE

Aircraft Serial Number: _____

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 above listed Textron B300 series Aircraft, only where covered in the items contained herein. For limitations and procedures not contained in this supplement, consult the Component Maintenance Manual, or other approved airplane data.

REVISION PAGE

Document Title: Instructions for Continued Airworthiness

Prepared By: M. Sutherland

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	FAA ACCEPTANCE
IR	All	Initial Release	01-18-2023	ODA Accepted, Cert Works ODA (AIR)-833887-NM
A	All	General: Added description and inspection procedures for optional headliner installation. 1.5: Added Torque Tables	10/17/2024	ODA Accepted, Cert Works ODA (AIR)-833887-NM

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ABBREVIATIONS AND DEFINITIONS

Abbreviations	Definitions
AED	Aircraft Evaluation Division
FAA	Federal Aviation Administration
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
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 drink rail and table system and/or headliner overlay installed by Supplemental Type Certificate (STC) SA01101DE.

Modifications to an aircraft obligates the operator to include the maintenance information provided by this document into the operator's 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 to the drink rail and table installations and headliner overlay installations. For limitations and procedures not contained in this supplement, consult the Airplane Maintenance Manual.

1.1 Applicability

This document Applies to Textron Aviation Inc. models B300 and B300C with the Aviation Fabricators Inc. drink rail and table system and/or headliner overlay installed.

1.2 Language

This manual is written to the Simplified English (SE) specification. This International Aerospace Maintenance Language Specification is important to maintenance personnel whose first language is not English.

1.3 Commuter Category Aircraft

The models B300 and B300C are commuter category aircraft. There are no changes to aircraft electrical loads associated with this modification. There are no changes to aircraft primary or secondary structure other than the attachment of the drink rail and table assemblies and sidewall panels, and attachment of headliner overlay panels. There are no special repair methods applicable.

1.4 Units of Measure

Unless otherwise noted, measurements throughout this manual are shown in American Standard units.

Example: 175.79 in

1.5 Torque Values

Refer to Mil-Spec or hardware manufacturer specifications for torque values. The tables below provide the recommended torque values for fastener combinations typically used.

The values shown are for clean, dry fasteners, no lubrication is applied.

Table 1 Recommended Torque Values for Nut-Bolt Combinations: Fine Thread Series

Bolts -- Steel Tension				Bolts -- Steel Tension				Bolts -- Aluminum				
AN 3 – AN 20				MS 20004 – MS 20024				AN 3DD – AN 20DD				
AN 42 – AN 49				NAS 144 – NAS 158				AN 173DD – AN 186DD				
AN 73 – AN 81				NAS 583 – NAS 590				AN 509DD				
AN 173 – AN 186				NAS 144 – NAS 158				AN 525D				
MS 20033 – MS 20046				NAS 144624 – NAS 644				MS 27039D				
MS 20073				NAS 1303 – NAS 1320				MS 24694DD				
MS 20074				NAS 172				-----				
AN 509 NK9				NAS 174				-----				
MS 24694				NAS 517				-----				
AN 525 NK525				-----				-----				
MS 27030				-----				-----				
Steel Shear Bolt												
NAS 464												
Nuts				Nuts				Nuts				
Steel Tension		Steel Shear		Steel Tension		Steel Shear		Aluminum Tension		Aluminum Shear		
AN 310		AN 320		AN 310		AN 320		AN 365D		AN320D		
AN 315		AN 364		AN 315		AN 364		AN 310D		AN 364D		
AN 363		NAS 1022		AN 363		NAS 1022		NAS 1021D		NAS 1022D		
AN 365		MS 17826		AN 365		MS 17826		-----		-----		
NAS 1021		MA 20364		MS 17825		MS 20364		-----		-----		
MS 17825		-----		MS 20365		-----		-----		-----		
MS 21045		-----		MS 21045		-----		-----		-----		
MS 20365		-----		NAS 1021		-----		-----		-----		
MS 20500		-----		NAS 679		-----		-----		-----		
NAS 679		-----		NAS 1291		-----		-----		-----		
FINE THREAD SERIES												
Nut-Bolt Size	Torque Limits In-lb		Torque Limits In-lb		Torque Limits In-lb		Torque Limits In-lb		Torque Limits In-lb		Torque Limits In-lb	
	Min.	Max	Min.	Max	Min.	Max	Min.	Max	Min.	Max	Min.	Max
8 - 36	12	15	7	9	-----	-----	-----	-----	5	10	3	6
10 - 32	20	25	12	15	25	30	15	20	10	15	5	10
1¼ - 28	50	70	30	40	80	100	50	60	30	45	15	30
5⁄16 - 24	100	140	60	85	120	145	70	90	40	65	25	40
3⁄8 - 24	160	190	95	110	200	250	120	150	75	110	45	70
7⁄16 - 20	450	550	270	300	520	630	300	400	180	280	110	170
1⁄2 - 20	480	690	290	410	770	950	450	550	280	410	160	260
9⁄16 - 18	800	1000	480	600	1100	1300	650	800	380	580	230	360
5⁄8 - 18	1100	1300	660	780	1250	1550	750	950	550	670	270	420
¾ - 16	2300	2500	1300	1500	2650	3200	1600	1900	950	1250	5560	880
7⁄8 - 14	2500	3000	1500	1800	3550	4350	2100	2600	1250	1900	750	1200
1 - 14	3700	4500	2200	3300	4500	5500	2700	3300	1600	2400	950	1500
1⅜ - 12	5000	7000	3000	4200	6000	7300	3600	4400	2100	3200	1250	2000
1¼ - 12	9000	11000	5400	6600	11000	13400	6600	8000	3900	5600	2300	3650

[illegible]

1.6 Revisions to ICA

When a revision to the ICA is necessary, an updated ICA will be submitted to the Aircraft Evaluation Group (AEG) for review and acceptance. The AEG accepts the change by sending an acceptance letter. The date of the acceptance will be annotated on the Revision Page of the ICA.

It is the responsibility of the operator to ensure they have the latest revision of this ICA. Current versions of Instructions for Continued Airworthiness may be obtained at the following website: <https://avfab.com/ica-documentation>.

1.7 Change Bars

The use of change bars in the right margin identifies text, figures or pages that have been added or extensively modified in accordance with this revision.

1.8 Data

Approved design data supporting the continued airworthiness of this modification is contained on Master Data List AF-655.

Design Change Control

All data and changes to the parts, assemblies, and installations will be tracked per Master Data List AF-655.

2.0 SYSTEM DESCRIPTION

This STC installs two different Aviation Fabricators, Inc. (AvFab) Textron B300/B300C interior modifications, which may be installed together or independently. These modifications include:

1. Drink rail and table system kits, which allow the operator to remove the existing interior shell items typically consisting of the old-style executive tables, arm ledges, and side panels, and then to replace them with new lower profile tables and a sleek drink rail installation similar in design to the newer production model 300 aircraft (also referred to as the King Air 360). The drink rail and table systems are installed from the window line panel down to the floorboard on both sides of the aircraft cabin. The modification will consist of four new tables, lower side wall panels, and all parts and hardware used to attach the new system to the existing aircraft frame structure. The new drink rail and table systems do not affect any of the electrical or systems components of the aircraft.
2. Headliner Overlay modification kit. This overlay installs below the OEM headliner panel. Air gaspers and reading lights are relocated from the OEM headliner panel to the new headliner overlay, but the same lateral and longitudinal positions are maintained relative to passenger seating. Oxygen drops are not modified; there are cutouts in the new headliner overlay to provide clearance for the oxygen drops.

The modification type design and installation data are defined by the Master Data List, document number AF-655, Revision IR or later FAA Approved revision.

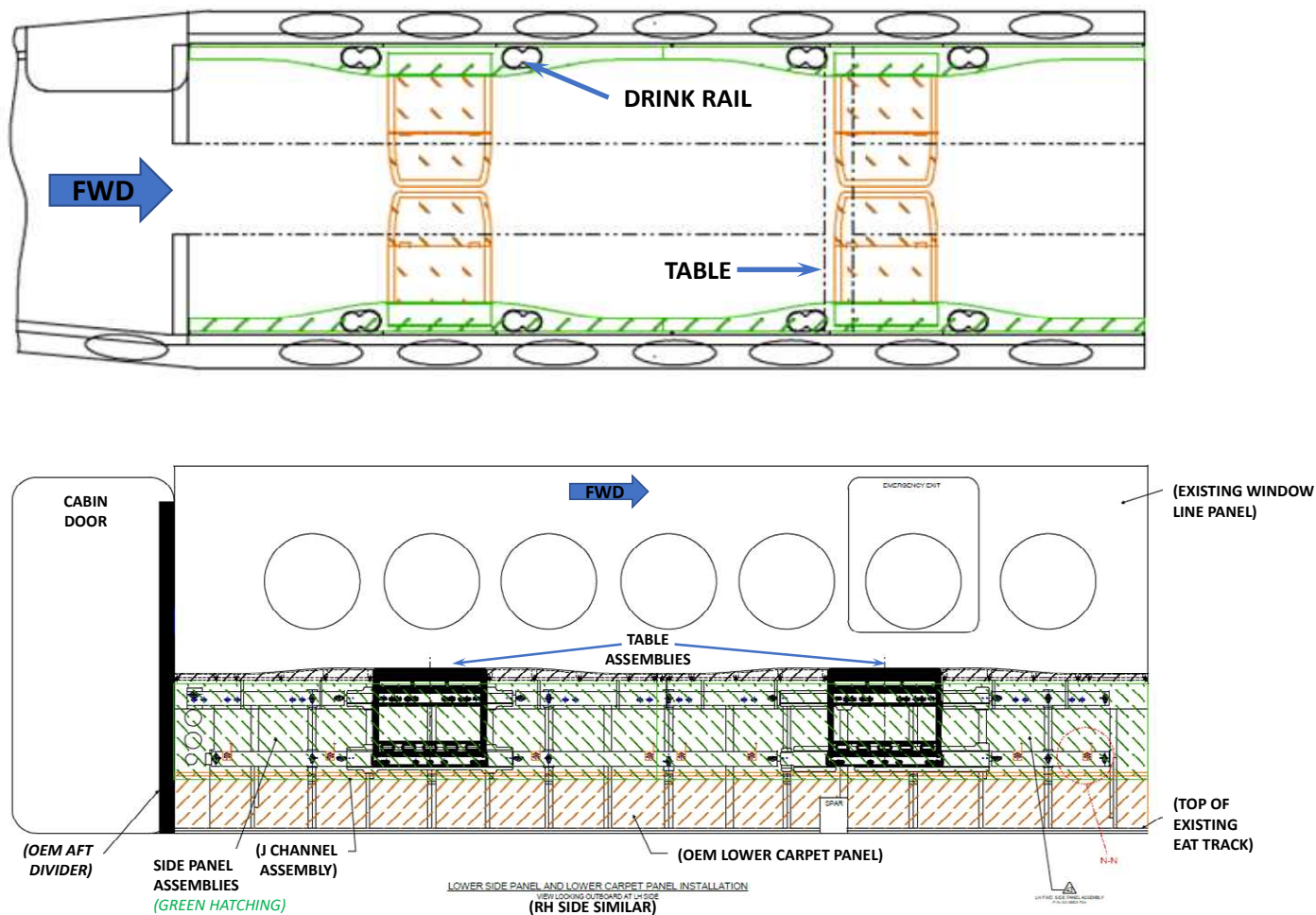


Figure 1 B300, B300C Drink Rail and Table Installations

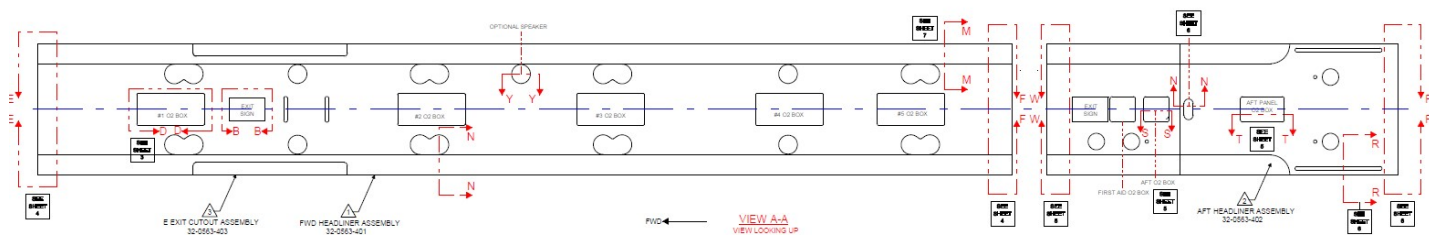


Figure 2 Headliner Overlay

3.0 INSPECTION REQUIREMENTS AND OVERHAUL SCHEDULE

This chapter contains the inspection requirements for this design change.

The inspections must be accomplished by qualified personnel to ascertain the airworthiness of the aircraft, and any discrepancy must be eliminated prior to further flight. The following inspections may be performed in conjunction with the Airframe Inspection Program for the aircraft. It is permissible to inspect only portions of the system during other inspection procedures provided the entire system is inspected in accordance with the inspection requirements listed below.

There are no recommended overhaul periods for the components associated with this STC. Components to be replaced when required.

The drink rail / arm ledge and table systems and headliner overlay should be inspected on the same maintenance schedule per the applicable B300/B300C Maintenance Manual for cabin interior panels and structure, coincident with the Phase 3 inspection, or at an annual inspection interval..

Table 3 Inspection Tasks

Task Code	Inspection Task Description	Schedule	Mech	Insp
<i>Drink Rail and Table Inspection Tasks</i>				
AFI-101	Inspect side wall panels for any damage.			
AFI-102	Inspect side wall panels for security of attachments.			
AFI-103	Inspect table surfaces for damage.			
AFI-104	Inspect table frames for damage and corrosion.			
AFI-105	Check operation and stowage of table assemblies, inspect table mechanism for damage,			
AFI-106	Inspect drink rails for damage and security of attachment			
AFI-107	Check security of attachment of lower trim panels (Ref. drawing D-10918). If trim panel appear loose, inspect potted inserts for damage/loss of retention. Replace inserts if required.			
<i>Headliner Inspection Tasks</i>				
AF-108	Inspect forward and aft headliner panels for any damage.			
AF-109	Inspect forward and aft headliner panels for security of attachments.			
AF-110	Inspect headliner cutouts for oxygen service to ensure there are no			

Task Code	Inspection Task Description	Schedule	Mech	Insp
	obstructions which would prevent normal operation of oxygen drops.			
AF-111	Ensure electrical jumper connections for reading lights are undamaged, and that there is no wire chafing or abrasion present.			

4.0 DIMENSIONS AND ACCESS:

The installations of the headliner overlay and drink rail and table assemblies do not change the dimensions of the aircraft or alter the access to any existing aircraft system or egress provisions.

5.0 LIFTING AND SHORING

Not Applicable to this modification.

6.0 LEVELING AND WEIGHING

No change to basic aircraft weight and balance limits. The drink rail and table and headliner overlay installations are considered to be permanent modifications to the aircraft and the basic aircraft weight and balance shall be updated upon completion of the modification.

7.0 TOWING AND TAXIING

Not Applicable to this modification.

8.0 PARKING AND MOORING

Not Applicable to this modification.

9.0 PLACARDS AND MARKINGS

The following placards are installed associated with the drink rail and table installations. This placard is installed to the table leaf assembly surface (Ref. drawing D-10905).

STOW BEFORE TAKEOFF AND LANDING

10.0 SERVICE INFORMATION

Table and Drink Rail or Headliner Overlay Cleaning:

1. Typically only a soft cloth dampened with water is necessary to clean table, side wall panel, and drink rail assemblies. Avoid abrasive cleaners.
2. Placards should be wiped clean with warm water and soap. Minimize the amount of liquid applied to placards.

11.0 Installation and Removal

A. Lower Sidewall Panels

The top of the Lower Side Panels fit into a slot on the underside of Drink Rail Assemblies right behind the face of drink rail cap. The bottom of the Lower Side Panel will latch into place and the bottom of Lower Side Panel will fit over the Lower Carpet Panels. Trim Panels will fit behind the Drink Rail Assemblies and velcro in place. Refer to the Installation Instructions (AF-656) for additional information on the sidewall panel installations; removal is completed in the reverse order of installation.

B. Drink Rail Assemblies

The drink rail assemblies, defined by drawing D-10907, consist of the cap assemblies (drawing D-10908) and the composite sub-structure assemblies (drawing D-10909), and associated trim and finishing components, which are considered good by inspection. We review the installation of the drink rail assemblies here. The drink rail assemblies are installed on drawing D-10918.

The composite sub structure of the drink rail assemblies have mounting holes that line up to pre-installed nutplates on the extrusion assemblies of the rail management system. The drink rail assembly is installed to the extrusion assemblies using AN525-10R14 Screws with AN960-10 Washers, that are retained by nutplates in the extrusion assemblies. Refer to the Installation Instructions (AF-656) for additional information on the drink rail installations; removal is completed in the reverse order of installation.

C. Tables

The table assemblies, when stowed, reside behind the aircraft sidewall panels and below the drink rail assemblies. There is a latching cover assembly which closes over each table. The table assemblies are installed to the upper and lower channel assemblies in the forward and aft left and right hand positions. In all cases, the tables are installed to the channel assemblies using sixteen AN525-10R7 screws. The Table Assemblies have slotted mounting holes that allow for forward/aft adjustment if needed to adjust to the Drink Rail Assembly table opening. Refer to the Installation Instructions (AF-656) for additional information on the table assembly installations; removal is completed in the reverse order of installation.

D. Headliner Overlay

The headliner overlay is installed in accordance with drawing D-10935. Installation and removal instructions are repeated here from that drawing and must be used in conjunction with the installation drawing to complete the Installation.

Forward Headliner Overlay Installation

1. Complete subassembly of forward headliner assembly in accordance with the "FWD Headliner Assembly Installation Instructions" on drawing D-10935. Temporarily clamp headliner assembly in place.
2. Attach new headliner assembly to existing headliner with AN525-10R7 screws into nutplates and brackets on either side of oxygen boxes.
3. Install drawing D-10935 Item 20 electrical harness assembly (P/N 17-1073) to extend wires from existing headliner for reading lights and switches. Refer to Detail L on drawing D-10935.
4. Install reading lights and air gaspers with vent sleeves into light trims per note 17 on drawing D-10935. *Note: Vent sleeves fit on top of air gaspers and may be trimmed to length needed to meet air ducts.*
5. Ensure oxygen box lids fit properly once headliner is in place.

Forward Headliner Overlay Removal

1. Disconnect drawing D-10935 Item 20 electrical harness assembly (P/N 17-1073) from reading light and switch assemblies.
2. Remove all AN525-10R7 screws from nutplates and brackets on either side of oxygen boxes.
3. Lower the forward headliner assembly to remove it.

Aft Headliner Overlay Installation

1. Complete subassembly of forward headliner assembly in accordance with the "AFT Headliner Assembly Installation Instructions" on drawing D-10935. Temporarily clamp headliner assembly in place.
2. Attach new headliner assembly to existing headliner with AN525-10R7 screws into nutplates and brackets on either side of oxygen boxes.
3. Install drawing D-10935 Item 20 electrical harness assembly (P/N 17-1073) to extend wires from existing headliner for reading lights and switches. Refer to Detail L on drawing D-10935.
4. Install reading lights and air gaspers with vent sleeves into light trims per note 17 on drawing D-10935. *Note: Vent sleeves fit on top of air gaspers and may be trimmed to length needed to meet air ducts.*
5. Ensure oxygen box lids fit properly once headliner is in place.

Aft Headliner Overlay Removal

1. Disconnect drawing D-10935 Item 20 electrical harness assembly (P/N 17-1073) from reading light and switch assemblies.
2. Remove all AN525-10R7 screws from nutplates and brackets on either side of oxygen boxes.
3. Lower the aft headliner assembly to remove it.

12.0 SPECIAL TOOLS

No special tools are required to support the installation or maintenance of this modification.

13.0 TROUBLESHOOTING AND REPAIRS

Refer to the existing Aircraft Maintenance Manual for troubleshooting the drink rail and table system and headliner overlay installations that is required beyond the information found on the installation drawings (Reference MDL AF-655) and in the installation instructions.

For replacement parts or repair of damage parts, Contact Aviation Fabricators at (660) 885-8317.

14.0 AIRWORTHINESS LIMITATIONS

The information contained herein supplements the basic Maintenance Manuals only in those areas listed, when the aircraft is modified in accordance with Aviation Fabricators Master Data List AF-655 Rev IR or later approved revision. For limitations and procedures not contained in this supplement, consult the basic Airplane Maintenance Manuals.

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

AIRWORTHINESS LIMITATIONS INFORMATION

No airworthiness limitations are associated with this type design change.

AIRWORTHINESS LIMITATIONS - LOG OF REVISIONS				
REV.	AFFECTED PAGE (s)	DESCRIPTION of REVISION	DATE	APPROVED
(A)	All	Initial Release		Kreg R. Voorhies, ODA administrator Cert Works ODA ODA(AIR)-833887-NM