

**MANDATORY****MTL-30-01****TITLE**

ICE AND RAIN PROTECTION - INERTIAL VANE CONTROL JOURNAL VERIFICATION

**EFFECTIVITY**

<b>MODEL</b>	<b>SERIAL NUMBERS</b>
King Air B300	FL-1079 thru FL-1089, FL-1091 thru FL-1100
King Air B300C	FM-71

**REASON**

The bushings in the 101-910114-13 and 101-910114-135 Levers in the anti-ice control shaft assembly were not built to specifications on some units. When assembled the 101-910114-75 and 101-910114-77 Journals were ground down to fit. This removed the cad plating and paint protecting the steel rod. The absence of this protection exposes the journal rod ends to corrosion and potential failure of the anti-ice system.

**DESCRIPTION**

This service document provides parts and instructions to inspect the forward and aft shaft assemblies of the engine inertial anti-icing system.

**COMPLIANCE**

MANDATORY. This service document must be accomplished within 12 months from the date of receipt.

A service document published by Textron Aviation may be recorded as *completed* in an aircraft log only when the following requirements are satisfied:

- 1) The mechanic must complete all of the instructions in the service document, including the intent therein.
- 2) The mechanic must correctly use and install all applicable parts supplied with the service document kit. Only with written authorization from Textron Aviation can substitute parts or rebuilt parts be used to replace new parts.
- 3) The mechanic or airplane owner must use the technical data in the service document only as approved and published.
- 4) The mechanic or airplane owner must apply the information in the service document only to aircraft serial numbers identified in the *Effectivity* section of the document.
- 5) The mechanic or airplane owner must use maintenance practices that are identified as acceptable standard practices in the aviation industry and governmental regulations.

No individual or corporate organization other than Textron Aviation is authorized to make or apply any changes to a Textron Aviation-issued service document or flight manual supplement without prior written consent from Textron Aviation.

Textron Aviation is not responsible for the quality of maintenance performed to comply with this document, unless the maintenance is accomplished at a Textron Aviation-owned Service Center.

**CONSUMABLE MATERIAL**

No specialized consumable materials are required to complete this service document.

April 1, 2019

MTL-30-01  
Page 1 of 8

Textron Aviation Customer Service, P.O. Box 7706, Wichita, KS 67277, U.S.A. 1-316-517-5800

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**TOOLING**

No specialized tooling is required to complete this service document.

**REFERENCES**

Beechcraft B300/B300C Fusion Maintenance Manual

**PUBLICATIONS AFFECTED**

None

**ACCOMPLISHMENT INSTRUCTIONS**

1. Prepare the airplane for maintenance.
  - A. Make sure that the airplane is electrically grounded.
  - B. Make sure that all switches are in the OFF/NORM position.
  - C. Disconnect electrical power from the airplane.
    - (1) Disconnect external electrical power.
    - (2) Disconnect the airplane battery.
  - D. Attach maintenance warning tags to the battery and external power receptacle that have **"DO NOT CONNECT ELECTRICAL POWER - MAINTENANCE IN PROGRESS"** written on them.
2. Remove the forward cowlings.
  - A. Remove the upper forward cowling. (Refer to Beechcraft B300/B300C Fusion Maintenance Manual, Chapter 71, Power Plant - Upper Forward Cowling - Removal/Installation.)
  - B. Remove the lower forward cowling. (Refer to Beechcraft B300/B300C Fusion Maintenance Manual, Chapter 71, Power Plant - Lower Forward Cowling - Removal/Installation.)
3. (Refer to Figure 1, Detail B and Figure 2.) Do an inspection of the forward shaft assembly.
  - A. If the journal shows indications of being ground down, go to Step 4.
  - B. If the journal does not show any indication of being ground down, go to Step 10.
4. Remove the forward shaft assembly. (Refer to Beechcraft B300/B300C Fusion Maintenance Manual, Chapter 30, Ice and Rain Protection - Forward (No. 1) Vane Assembly - Removal/Installation.)
5. Remove the old 101-910114-13 Lever Assembly.
  - A. Remove one 130909N29 Nut.
  - B. Remove one NAS1149F0363P Washer.
  - C. Remove one 130909B24 Bolt.
  - D. Remove the 101-910114-13 Lever Assembly from the 101-910114-75 Journal.
6. Make note of how attachment hardware connects the existing 101-910114-71 forward weld assembly to the forward shaft assembly.
7. Remove the existing 101-910114-71 forward weld assembly from the forward shaft assembly. Keep the noted attachment hardware.
8. Use kept attachment hardware to install one new 101-910114-71 Forward Weld Assembly onto the forward shaft assembly.
9. Install the new 101-910114-13 Lever Assembly.
  - A. Install one 101-910114-13 Lever Assembly onto the 101-910114-75 Journal.
  - B. Install one 130909B24 Bolt.
  - C. Install one NAS1149F0363P Washer.

- D. Install one 130909N29 Nut.
- 10. Install the forward shaft assembly. (Refer to Beechcraft B300/B300C Fusion Maintenance Manual, Chapter 30, Ice and Rain Protection - Forward (No. 1) Vane Assembly - Removal/Installation.)
- 11. (Refer to Figure 1, Detail C and Figure 2.) Do an inspection of the aft shaft assembly.
  - A. If the journal shows indications of being ground down, go to Step 12.
  - B. If the journal does not show any indication of being ground down, go to Step 19.
- 12. Remove the aft shaft assembly. (Refer to Beechcraft B300/B300C Fusion Maintenance Manual, Chapter 30, Ice and Rain Protection - Aft (No. 2) Vane Assembly (Bypass) - Removal/Installation.)
- 13. Remove old 101-910114-135 (or equivalent 101-910114-91) Lever Assembly.
  - A. Remove one 130909N32 Nut.
  - B. Remove one AN960-416 Washer.
  - C. Remove one 130909B45 Bolt.
  - D. Remove the 101-910114-135 (or equivalent 101-910114-91) Lever Assembly from the 101-910114-77 Journal.
- 14. Make note of how the attachment hardware connects the existing 101-910114-129 vane control shaft assembly to the aft shaft assembly.
- 15. Remove the existing 101-910114-129 vane control shaft assembly from the aft shaft assembly. Keep the noted attachment hardware.
- 16. Use kept attachment hardware to install one new 101-910114-129 Vane Control Shaft Assembly onto the aft shaft assembly.
- 17. Install one 101-910114-135 Lever Assembly.
  - A. Install one 101-910114-135 Lever Assembly onto the 101-910114-77 Journal.
  - B. Install one 130909B45 Bolt.
  - C. Install one AN960-416 Washer.
  - D. Install one 130909N32 Nut.
- 18. Install the aft shaft assembly. (Refer to Beechcraft B300/B300C Fusion Maintenance Manual, Chapter 30, Ice and Rain Protection - Aft (No. 2) Vane Assembly (Bypass) - Removal/Installation.)
- 19. Remove the maintenance warning tags and connect the airplane battery.
- 20. Do the Engine Inertial Anti-icing System Rigging. (Refer to Beechcraft B300/B300C Fusion Maintenance Manual, Chapter 30, Ice and Rain Protection - Engine Inertial Anti-icing System - Adjustment/Test.)

**WARNING: The Engine Inertial Anti-Icing System Rigging is only required if one or both of the shaft assemblies have been removed and replaced.**
- 21. Install the forward cowlings.
  - A. Install the lower forward cowling. (Refer to Beechcraft B300/B300C Fusion Maintenance Manual, Chapter 71, Power Plant - Lower Forward Cowling - Removal/Installation.)
  - B. Install the upper forward cowling. (Refer to Beechcraft B300/B300C Fusion Maintenance Manual, Chapter 71, Power Plant - Upper Forward Cowling - Removal/Installation.)

**MANDATORY****MTL-30-01**

22. Make an entry in the airplane logbook that states compliance and method of compliance with this service document.

**NOTE:** Textron Aviation recommends that compliance with all service documents is reported to Camp Systems International.

- Complete a record of compliance. (Maintenance Transaction Report, Log Book Entry, or other record of compliance.)
- Put a copy of the completed record of compliance in the airplane logbook.
- Send a copy of the completed record of compliance to: Camp Systems International Incorporated, 8201 East 34th Street North, Building 1100 Suite 1101 Wichita, KS 67226.

**MANDATORY**

**MTL-30-01**

E71852

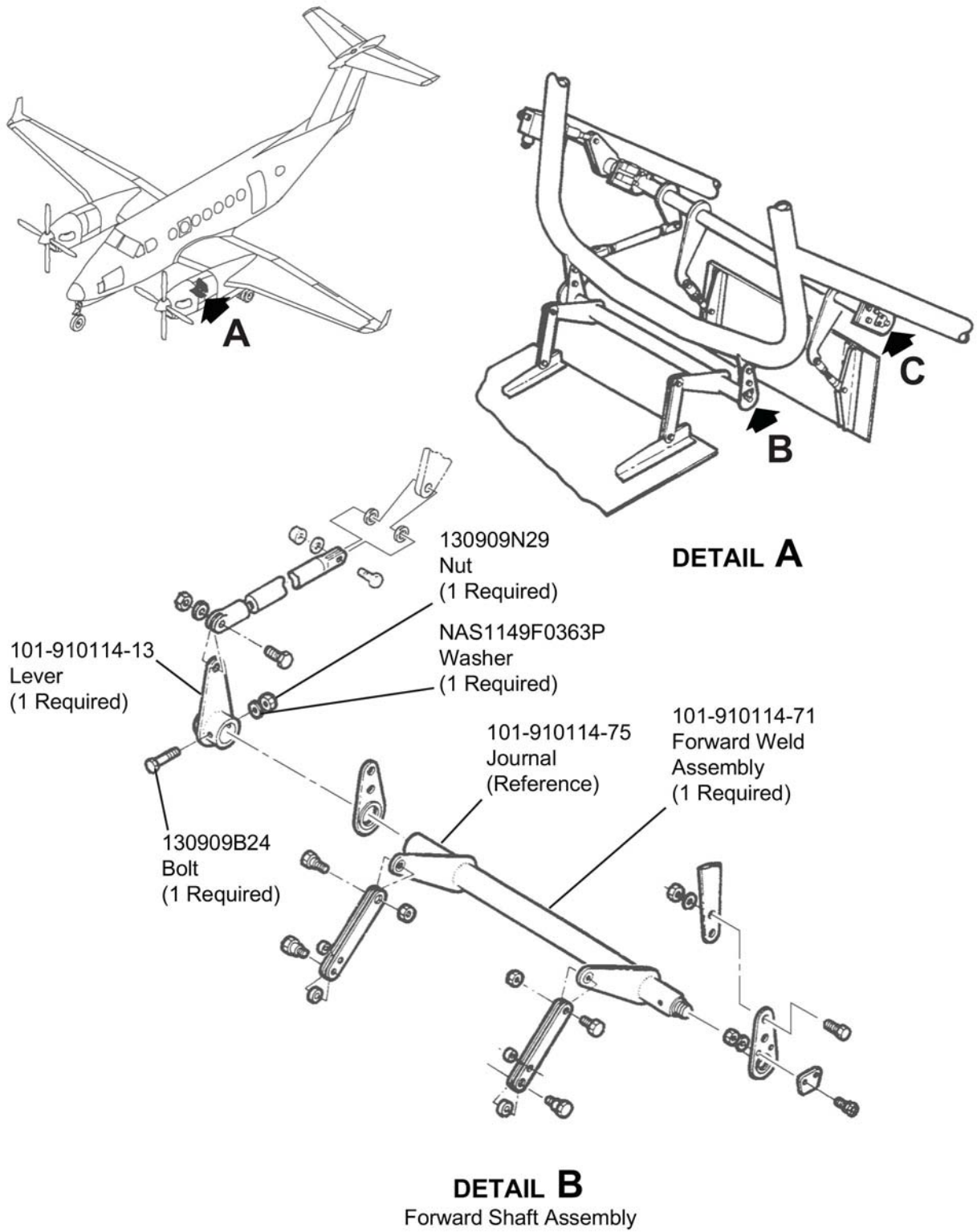


Figure 1. Forward and Aft Vane Assemblies (Sheet 1)

**MANDATORY**

**MTL-30-01**

E71857

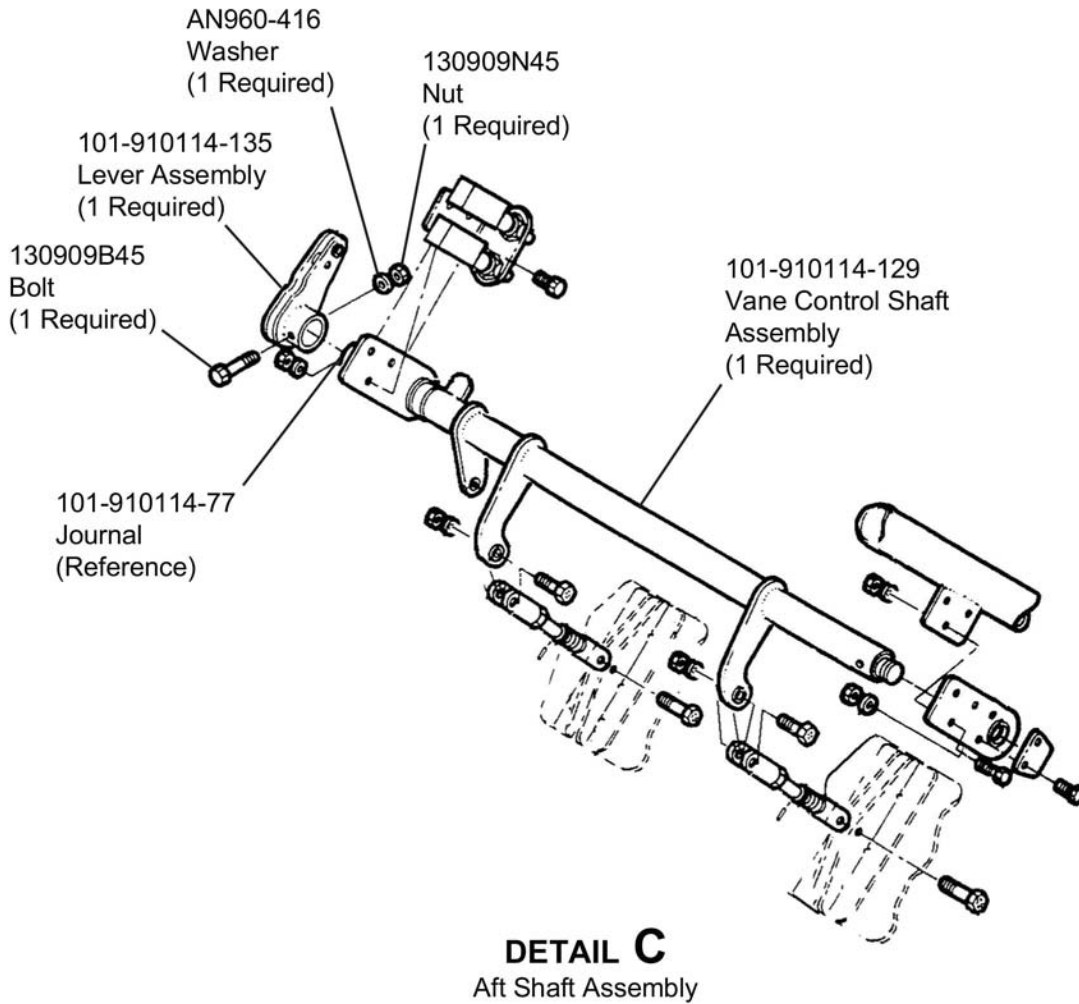


Figure 1. Forward and Aft Vane Assemblies (Sheet 2)

**MANDATORY**

**MTL-30-01**

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101-910114-135  
Lever Assembly  
(Reference)



Cad Plating Removed

101-910114-77  
Journal  
(Reference)

101-910114-135  
Lever Assembly  
(Reference)



With Cad Plating

101-910114-77  
Journal  
(Reference)

Figure 2. Inspection Reference (Sheet 1)

**MANDATORY****MTL-30-01****MATERIAL INFORMATION**

Order the kit below as needed.

NEW P/N	QUAN- TITY	KEY WORD	OLD P/N	INSTRUCTIONS/ DISPOSITION
<b>MTL-30-01</b>	1	<b>Kit</b> , consisting of the following parts:		
AN960-416	2	Washer		
NAS1149F0363P	2	Washer		
101-910114-129	2	Vane Control Shaft Assembly		
101-910114-135	2	Lever Assembly		
101-910114-13	2	Lever Assembly		
101-910114-71	2	Forward Weld Assembly		
130909B24	2	Bolt		
130909B45	2	Bolt		
130909N29	2	Nut		
130909N32	2	Nut		
MTL-30-01	1	Instructions		

\* Please contact Textron Aviation Parts Distribution for current cost and availability of parts listed in this service document. Phone at 1-800-835-4000 (Domestic) or 1-316-517-5603 (International). Send email to: [parts@txtav.com](mailto:parts@txtav.com).

Based on availability and lead times, parts may require advanced scheduling.



**TITLE**

ICE AND RAIN PROTECTION - INERTIAL VANE CONTROL JOURNAL VERIFICATION

**TO:**

King Air Aircraft Owner

**REASON**

The bushings in the 101-910114-13 and 101-910114-91 Levers in the anti-ice control shaft assembly were not built to specifications on some units. When assembled the 101-910114-75 and 101-910114-77 Journals were ground down to fit. This removed the cad plating and paint protecting the steel rod. The absence of this protection exposes the journal rod ends to corrosion and potential failure of the anti-ice system.

**COMPLIANCE**

MANDATORY. This service document must be accomplished within 12 months from the date of receipt.

**LABOR HOURS****WORK PHASE**

Modification

**LABOR-HOURS**

7 Hours Per Engine

**MATERIAL AVAILABILITY****PART NUMBER****AVAILABILITY****COST**

MTL-30-01

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Based on availability and lead times, parts may require advanced scheduling.

**WARRANTY**

This service document is *mandatory*. Eligible airplanes may qualify for parts and labor coverage to the extent noted in the *Labor Hours* and *Material Availability* sections of this document.

**Eligibility:** Airplanes identified within the serial number effectivity of this service document must have active Airframe warranty coverage on the original issue date of this document and the coverage must be active on the day the work is accomplished.

**Parts Coverage:** Textron Aviation-owned and Textron Aviation-authorized Service Facilities, operators, or other maintenance facilities may submit a claim for the parts required to accomplish this service document as defined in the *Material Availability* section of this document.

**Labor Coverage:** Textron Aviation-owned and Textron Aviation-authorized Service Facilities rated to perform maintenance on the specific model of Beechcraft Aircraft may submit a claim for the labor necessary to accomplish this service document as defined in the *Labor Hours* section of this document.

**Credit Application:** After this service document has been accomplished, a claim must be submitted to Textron Aviation within 30 days of the service document completion. Claims for compliance of this service document are to be filed as a W4 type claim.

Please submit your claim form online at [ww2.txtav.com/Parts](http://ww2.txtav.com/Parts) or email the completed Textron Aviation Claim Form to [warranty@txtav.com](mailto:warranty@txtav.com). If submitted on-line a Return Authorization will be provided. If a paper claim is submitted your claim will be entered into the system and a Return Authorization will be sent to you.

The Return Authorization must accompany any required return parts (see *Material Availability*), to the point of purchase.

Parts to be returned to Textron Aviation Parts Distribution should be forwarded to:

Textron Aviation Parts Distribution  
Warranty Administration  
285 South Greenwich Road  
Bldg B89, Docks 1-4  
Wichita, KS 67206  
USA

**Expiration:** April 1, 2020 (after this date the owner/operator assumes the responsibility for compliance costs)

Textron Aviation reserves the right to void continued airplane warranty coverage for the parts affected by this service document until the service document is accomplished.

**NOTE:** As a convenience, service documents are now available online to all our customers through a simple, free-of-charge registration process. If you would like to sign up, please visit the Customer Access link at [www.txtavsupport.com](http://www.txtavsupport.com) to register.