

SERVICE BULLETIN

TITLE: LANDING GEAR - NOSE LANDING GEAR FORWARD RETRACT PLUNGER ROD INSPECTION / REPLACEMENT

1. Planning Information

A. Effectivity

(1) Airplanes

(a) Civil

Model G36 Bonanza, Serials E-3979 through E-3981, E-3983 through E-3986, E-3988 through E-3994;

Model G58 Baron, Serials TH-2339 through TH-2345, TH-2348, TH-2351, TH-2352, TH-2354, TH-2355, TH-2357 through TH-2359, TH-2362, and TH-2364 through TH-2366.

The following models shall review applicable airplane maintenance records before complying with this Service Bulletin:

Model 33, Model 35, Model 36 Series, Model 55 Series, Model 56TC, Model 58 Series, Model 95 Series (Travel Air). Any P/N 35-825094-4 NLG plunger assemblies or NLG retract rod assembly P/Ns 96-820025, 96-820025-17 or 35-825087-16 delivered between March 1, 2012 and March 31, 2013 are affected.

(b) Military

The following models shall review applicable airplane maintenance records before complying with this Service Bulletin:

Model 34C, T-34C, and T-34C-1.

This Service Bulletin applies to airplanes that have installed Nose Landing Gear (NLG) plunger assembly, P/N 35-825094-4 or NLG retract rod assembly, P/N 96-820024-17 purchased from Hawker Beechcraft Parts and Distribution (HBP&D) between March 1, 2012 and March 31, 2013.

The export of these commodities, technology or software are subject to the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited. For guidance on export control requirements, contact the Commerce Department's Bureau of Export Administration at <http://www.bis.doc.gov>.

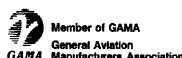
Beechcraft Corporation (BC) issues Service Information for the benefit of owners and fixed base operators in the form of two classes of Service Bulletins. The first class, Mandatory Service Bulletins (red border) includes changes, inspection and modifications that could affect safety or crashworthiness. BC also issues Service Bulletins with no red border which are designated as either recommended or optional in the compliance section within the bulletin. In the case of recommended Service Bulletins, BC feels the changes, modifications, improvements or inspections will benefit the owner/operator and although highly recommended, Recommended Service Bulletins are not considered mandatory at the time of issuance. In the case of Optional Service Bulletins, compliance with the changes, modifications, improvements or inspections is at the owner/operator's discretion.

Both classes are available on the web at <http://pubs.hawkerbeechcraft.com> and mailed to:

- (a) Owners of record on the FAA Aircraft Registration Branch List and the BC Safety of Flight Information (SOFI) List.
- (b) Those having a publications subscription.

Information on Safety of Flight Information (SOFI) or subscription can be obtained through the Beechcraft Corporation Technical Manual Distribution Center (TMDC). As Mandatory Service Bulletins and Service Bulletins are issued, the Service Bulletin Master Index will be updated and available online at <http://pubs.beechcraft.com>. Warranty will be allowed only when specifically defined in the Service Bulletin and in accordance with BC Warranty Policy.

Unless otherwise designated, BC Mandatory Service Bulletins, Service Bulletins and BC Kits are approved for installation on BC airplanes in original or BC modified configurations only. BC Mandatory Service Bulletins, Service Bulletins and Kits may not be compatible with airplanes modified by STC installations or modifications other than BC approved kits.



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If you are no longer in possession of the airplane, please forward this information to the present owner.

(2) Spares

Any P/N P/N 35-825094-4 NLG plunger assemblies or NLG retract rod assembly P/Ns 96-820025, 96-820025-17 or 35-825087-16 delivered between March 1, 2012 and March 31, 2013 are affected.

B. Reason

This Service Bulletin is being issued to inspect for, and if necessary, replace the P/N 35-825094-4 NLG plunger assemblies. An improperly brazed rod end might separate from the plunger assembly during landing gear operation. The plunger assembly is part of the NLG extension/retraction system and a separated push-pull retract rod assembly plunger rod end might result in a NLG disconnect from the retraction system that could allow the nose landing gear to collapse on landing.

C. Description

The PMC-manufactured P/N 35-825094-4 NLG plunger assembly is replaced.

D. Compliance

(1) Civil Airplanes

An Airworthiness Directive will be requested on the matter covered by this Service Bulletin.

Beechcraft Corporation considers this to be a Mandatory Service Bulletin. It must be accomplished no later than 50 flight hours or nine (9) months from issuance of this Service Bulletin, whichever occurs first.

(2) Military Airplanes

For compliance information on military airplanes affected by this Service Bulletin, contact the appropriate headquarters.

E. Approval

The engineering data contained in this Service Bulletin is FAA approved.

Prior to accomplishment, owners/operators of airplanes registered in countries other than the United States shall consult with their local Aviation Regulatory Authority.

Incorporation of this Service Bulletin restores the airplane to original Type Design.

F. Manpower

The following information is for planning purposes only:

NOTE

No warranty coverage will be allowed for the inspection portion of this Service Bulletin.

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Estimated man-hours: 4 hours

Suggested number of technicians: 1

The above is an estimate based on experienced, properly equipped technicians complying with this Service Bulletin. Occasionally, after work has started, conditions may be found that could result in additional man-hours.

G. Weight and Balance

Negligible.

It is the responsibility of the owner/operator to maintain compliance with the applicable Airworthiness Regulations.

H. Electrical Load Data

No change.

I. Software Accomplishment Summary

Not applicable.

J. References

Part A

Bonanza Series Maintenance Manual (MM), P/N 36-590001-9C6 or subsequent revision, Chapters 07-00-00 and 32-00-00;

Bonanza (Model G36) Maintenance Manual Supplement (MMS), P/N 36-590001-11B or subsequent revision, Chapter 24-35-00;

Bonanza (G36) Illustrated Parts Catalog (IPC), P/N 36-590001-1T or subsequent revision, Chapter 32;

Baron Maintenance Manual, P/N 55-590000-13G5 or subsequent revision, Chapters 07-10-00 and 32-00-00;

Baron (Model G58) Maintenance Manual Supplement, P/N 58-590001-1C or subsequent revision, Chapter 24-35-00;

Baron (G58) Illustrated Parts Catalog (IPC), P/N 58-590000-19R or subsequent revision, Chapter 32.

Part B

Appropriate chapter of the applicable Maintenance Manual, Shop Manual, Technical Order, Job Guide or Illustrated Parts Catalog, Chapter 32.

K. Publications Affected

None.

L. Interchangeability of Parts

Not applicable.

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M. Warranty Credit

(1) Civil Airplanes.

Warranty credit for labor and parts to the extent noted under MANPOWER and MATERIAL will be allowed on all airplanes meeting all the following criteria:

- (a) Airplane owners must have active Standard Warranty coverage and/or an active Beechcraft Maintenance program with applicable Service Bulletin coverage for the subject airplane when the Service Bulletin is issued.
- (b) Standard Warranty coverage and/or Beechcraft Maintenance Program with applicable Service Bulletin coverage must be active for the subject airplane on the day the work is accomplished.
- (c) The work shall be accomplished in accordance with the criteria defined in Paragraph 1.D., COMPLIANCE.
- (d) The work shall be accomplished in accordance with criteria defined in Paragraph 3, ACCOMPLISHMENT INSTRUCTIONS.
- (e) The work shall be accomplished at Hawker Beechcraft Services or an Authorized Service Center (ASC) rated to perform work on the specific model of Beechcraft airplane.
- (f) While work shall be accomplished in accordance with the criteria defined in Paragraph 1.D, COMPLIANCE, warranty coverage offered in this Service Bulletin will expire 12 months from the last day of the month this Service Bulletin is issued. After this date, the owner/operator assumes the responsibility for compliance cost.
- (g) Claims for compliance with this Service Bulletin (SB) are to be filed as a W4-type claim against SB 32-4125.
- (h) After the Service Bulletin has been accomplished, a warranty claim must be submitted to Beechcraft within 60 days of the Service Bulletin completion date.

Beechcraft Corporation reserves the right to void continued airplane warranty coverage in the area affected by this Service Bulletin until the date the Service Bulletin is accomplished.

The owner/operator should contact Hawker Beechcraft Services or an ASC to schedule the warranty work to be accomplished. Hawker Beechcraft Services or an ASC must submit the appropriate paperwork directly to the Beechcraft Warranty Department for warranty consideration.

Any NLG plunger assembly P/N 35-825094-4, removed from the airplane or from spares inventory, **SHALL** be red-tagged and returned to HBP&D at the following address in order to receive warranty consideration:

Hawker Beechcraft Parts & Distribution (HBP&D)
C/O PFS Web
801 Industrial Boulevard, Suite 100
Dock B
Grapevine, TX 76051

(2) Military Airplanes

For warranty information on military airplanes affected by this Service Bulletin, contact the appropriate headquarters.

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2. Material Information

A. Materials - Price and Availability

Contact information:

Hawker Beechcraft Parts & Distribution (HBP&D)
 10511 East Central Avenue
 Wichita, KS 67206
 USA
 Phone: 316-676-3100 or 1-888-727-4344
 Fax: 316-676-3222 or 316-676-3327
 E-mail: HBC_Parts@beechcraft.com

B. Industry Support

Not applicable.

C. Airplanes

NOTE

The NLG plunger assembly is common to all airplanes listed in Paragraph 1.A. EFFECTIVITY. However, it is a component of the larger retract rod assembly, which varies by airplane model. Therefore, this Service Bulletin is accomplished by replacing ONLY the NLG plunger assembly, P/N 35-825094-4 within the model specific NLG retract rod assembly, P/Ns 96-820025, 96-820025-17 or 35-825087-16.

- (1) The following parts required for accomplishment of this Service Bulletin may be ordered through Hawker Beechcraft Services, an ASC, or HBP&D:

Part Number	Description	Quantity Per Airplane
35-825094-4	NLG Plunger Assembly	1

Beechcraft Corporation expressly reserves the right to supersede, cancel and/or declare obsolete, without prior notice, any parts or publications that may be referenced in this Service Bulletin.

- (2) The following materials may be obtained locally:

Part Number	Description	Quantity Per Airplane
MS24665-132 or equivalent	Pin, Cotter	3

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D. Spares

Inspect stock for NLG plunger assembly P/N 35-825094-4, or NLG retract rod assembly P/Ns 96-820025, 96-820025-17 or 35-825087-16 purchased from HBP&D between **March 2012 and April 2013**. ONLY the NLG plunger assembly, P/N 35-825094-4, shall be returned to HBP&D for replacement. Refer to Section 1. M. Warranty Credit for return information.

E. Reidentified Parts

None.

F. Tooling - Price and Availability

Not applicable.

3. Accomplishment Instructions

NOTE

The Accomplishment Instructions are presented in two (2) parts. Refer to the section corresponding to the specific model of airplane being modified.

This Service Bulletin shall be accomplished as follows:

NOTE

Should any difficulty be encountered in accomplishing this Service Bulletin, contact Beechcraft Corporation at 1-800-429-5372 or 316-676-3140 or contact appropriate headquarters for military airplanes.

A. Airplane

WARNING

Observe all Warnings and Cautions contained in the airplane manuals referenced in this Service Bulletin.

Whenever any part of this system is dismantled, adjusted, repaired or renewed, detailed investigation must be made on completion to make sure that distortion, tools, rags or any other loose articles or foreign matter that could impede the free movement and safe operation of the system are not present, and that the systems and installations in the work area are clean.

PART A - MODEL 36 AND G36 BONANZA, MODEL 58 AND G58 BARON

NOTE

Refer to the applicable Illustrated Parts Catalog (IPC) to determine the correct retract rod assembly part number for the specific airplane undergoing maintenance.

- (1) Model G36 Bonanza and G58 Baron serials shall proceed to incorporate this Service Bulletin. Refer to Paragraph 1.A. to confirm effectivity and proceed to Step (3) below.

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- (2) Models 36 Bonanza and 58 Baron: Review applicable airplane maintenance records to determine if the NLG plunger assembly P/N 35-825094-4, or NLG retract rod assembly P/Ns 96-820025 or 35-825087-16 were purchased from HBP&D between **March 2012 and April 2013**, and installed on the airplane.
 - (a) If it is confirmed that no component replacement was performed during the noted time frame, proceed to Paragraph 3.C. Record of Compliance.
 - (b) If component replacement was performed during the noted time frame, proceed to Step (3) below.
- (3) Inspect the P/N 35-825094-4 NLG plunger assembly rod end at the intersection with the plunger tube and rod end in accordance with the following:
 - (a) For Bonanza models - Refer to Figure 4 for access points for the P/N 35-825094-4 NLG plunger assembly. Inspect for a braze (fillet) between the plunger tube and the rod end. Refer to Figure 1. Lack of a braze will be indicated by a recessed gap. If no braze is present, proceed to Step (4) to remove and replace the P/N 35-825094-4 NLG plunger assembly with a properly brazed P/N 35-825094-4 NLG plunger assembly. If a braze fillet is present, proceed to Step (16).
 - (b) For Baron models - Refer to Figure 5 and remove access panel 15 by removing and retaining attachment screws. Retain the access panel and attachment screws for reinstallation following inspection/replacement. Inspect for a braze (fillet) between the plunger tube and the rod end. Refer to Figure 2. Lack of a braze will be indicated by a recessed gap. If no braze is present, proceed to Step (4) to remove and replace the P/N 35-825094-4 NLG plunger assembly with a properly brazed P/N 35-825094-4 NLG plunger assembly. If a braze fillet is present, proceed to Step (16).
 - (c) For spare P/N 35-825094-4 plunger assemblies, inspect for a braze (fillet) between the plunger tube and the rod end. If no braze is present, return parts to Beechcraft Corporation in accordance with Paragraph 1.M.(1).
- (4) Place airplane on jacks. Refer to MM Chapter 07-00-00 (Bonanza) or Chapter 07-10-00 (Baron).
- (5) Position nose landing gear for ease of access to the retract rod and plunger assemblies. Refer to applicable MM Chapter 32-00-00, Figure 3, and Figure 4 (Bonanza) or Figure 5 (Baron).
- (6) Remove all power from the airplane and disconnect the battery per model-specific instructions below. Display warning notices prohibiting reconnection of airplane electrical power.
 - G36 Bonanza: Perform *ELECTRICAL POWER - DISCONNECT*. Refer to MMS Chapter 24-35-00;
 - 36 Bonanza: Disconnect batteries. Refer to MM Chapter 24-30-00;
 - G58 Baron: Perform: *ELECTRICAL POWER - DISCONNECT*. Refer to MMS Chapter 24-35-00;
 - 58 Baron: Disconnect batteries. Refer to MM Chapter 24-30-00.
- (7) Gain access to NLG plunger assembly through nose wheel well (Bonanza and Baron) and by removing floorboards, if necessary, under the copilot's rudder pedals (Baron only). Refer to Figures 4 and 5.

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- (8) Remove NLG retract rod assembly. Discard cotter pins but retain other hardware. Refer to Figure 3.

WARNING

Maintenance personnel should be aware that the landing gear retract rod assembly compression spring is under load pressures and injury to personnel or damage to equipment may occur if proper handling is not exercised.

- (9) Remove plunger assembly from retract rod. Discard cotter pin but retain other hardware.
- (10) Red tag and return ONLY the removed P/N 35-825094-4 plunger assembly to HBP&D for warranty consideration. Refer to Paragraph 1.M. for return address.
- (11) Replace ONLY the P/N 35-825094-4 plunger assembly using hardware retained from Step (9) and new cotter pin, P/N MS24665-132. Refer to applicable MM Chapter 32-00-00, Figure 3, and Figure 4 (Bonanza) or Figure 5 (Baron).
- (12) Install existing NLG retract rod assembly, including new plunger assembly, using hardware retained from Step (8) and new cotter pins, P/N MS24665-132.
- (13) Connect external electrical power per model-specific instructions below:
- G36 Bonanza: Perform *ELECTRICAL POWER - CONNECT*. Refer to MMS, Chapter 24-35-00;
 - 36 Bonanza: Connect batteries. Refer to MM Chapter 24-30-00;
 - G58 Baron: Perform *ELECTRICAL POWER - CONNECT*. Refer to MMS, Chapter 24-35-00;
 - 58 Baron: Connect batteries. Refer to MM Chapter 24-30-00.
- (14) Verify proper rigging of the landing gear system. Refer to the applicable MM, Chapter 32-00-00, Landing Gear - Rigging (Bonanza and Baron).
- (15) Remove airplane from jacks. Refer to applicable MM, Chapter 07-00-00 (Bonanza) or Chapter 07-10-00 (Baron).
- (16) Secure access panel 15 (Baron airplanes only) that was removed to facilitate inspection. Use retained attachment hardware to secure the access panel. Install plug button (Bonanza airplanes only) that was removed to gain access to P/N 35-825094-4 plunger assembly. Install P/N 36-820025-1 Cover Assembly (Bonanza only).
- (17) Ensure all work areas are clean and clear of tools and miscellaneous items of equipment.
- (18) Return airplane to service.
- (19) Proceed to Paragraph 3.C. Record of Compliance.

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PART B - MODEL 33 SERIES , MODEL 35 SERIES, MODEL 55 SERIES, MODEL 5 6TC, AND MODEL 95 SERIES (TRAVEL AIR); MILITARY AIRPLANES MODEL 34C, MODEL T-34C, AND T34C-1

NOTE

Refer to the applicable Illustrated Parts Catalog (IPC) to determine the correct retract rod assembly part number for the specific airplane undergoing maintenance.

- (1) Review applicable airplane maintenance records to determine if the NLG plunger assembly P/N 35-825094-4, or NLG retract rod assembly P/Ns 96-820025, 96-820025-17 or 35-825087-16 were purchased from HBP&D between **March 2012 and April 2013**, and installed on the airplane.
 - (a) If it is confirmed that no component replacement was performed during the noted time frame, proceed to Paragraph 3.C. Record of Compliance.
 - (b) If component replacement was performed during the noted time frame, proceed to Step (2) below.

WARNING

Maintenance personnel should be aware that the landing gear retract rod assembly compression spring is under load pressures and injury to personnel or damage to equipment may occur if proper handling is not exercised.

- (2) Refer to Figures 1 through 5 and the applicable Maintenance Manual, Shop Manual, Technical Order, or Job Guide for airplane-specific instructions to secure the airplane for maintenance, inspect, place the airplane on jacks (a requirement for removal/replacement), and remove and replace the NLG plunger assembly from the retract rod assembly. Discard cotter pins but retain other hardware.
- (3) Red tag and return **ONLY** the removed P/N 35-825094-4 NLG plunger assembly to HBP&D for warranty consideration. Refer to Paragraph 1.M. for return address.
- (4) Install existing NLG retract rod assembly including new plunger assembly using hardware retained from Step (2) above and new cotter pins, P/N MS24665-132.
- (5) Verify proper rigging of the landing gear system. Refer to the applicable manual for instructions.
- (6) Remove the airplane from jacks. Refer to the applicable manual, Technical Order or Job Guide.
- (7) Ensure all work areas are clean and clear of tools and miscellaneous items of equipment.
- (8) Restore power to the airplane (as applicable) and remove warning notices. Refer to the applicable manual, Technical Order or Job Guide.
- (9) Return airplane to service.

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B. Spares

Research records to determine if NLG plunger assembly P/N 35-825094-4, or NLG retract rod assembly P/Ns 96-820025, 96-820025-17 or 35-825087-16 were purchased from HBP&D between **March 2012 and April 2013** and installed on the airplane.

C. Record of Compliance

Upon completion of this Service Bulletin, make an appropriate maintenance record entry.

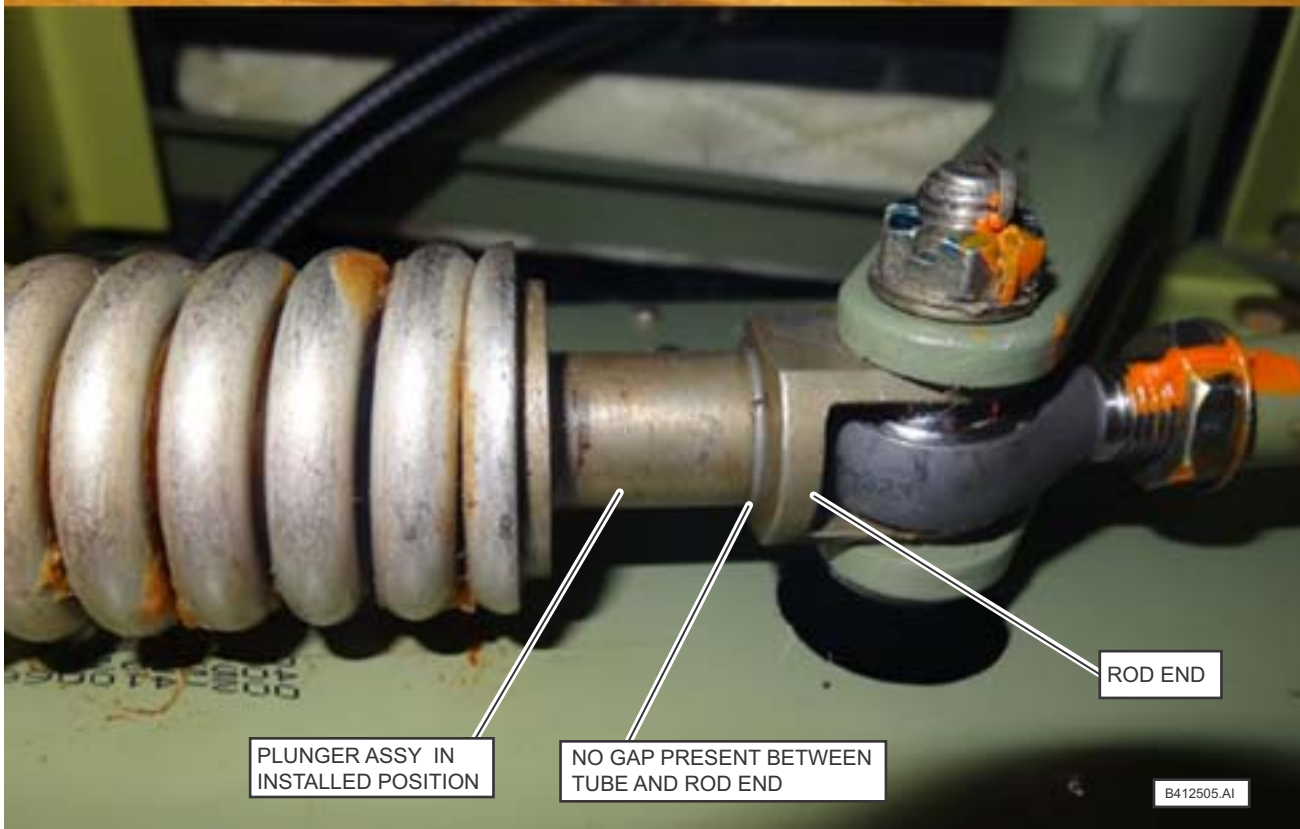
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PMC P/N 35-825094-4 NLG Plunger Assembly Braze Inspection

Figure 1

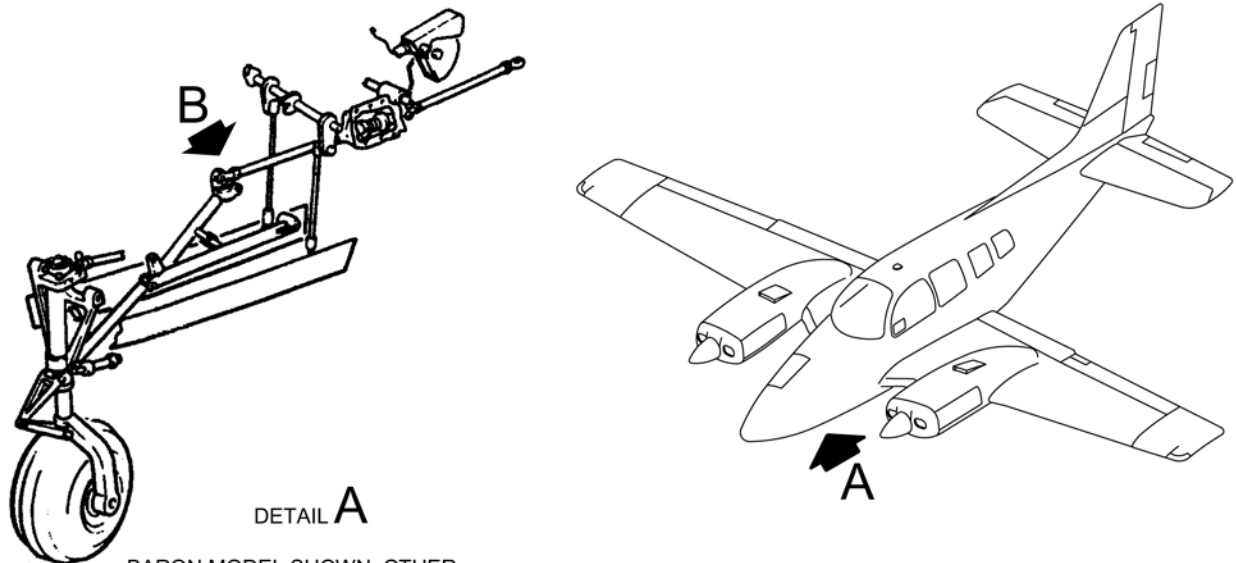
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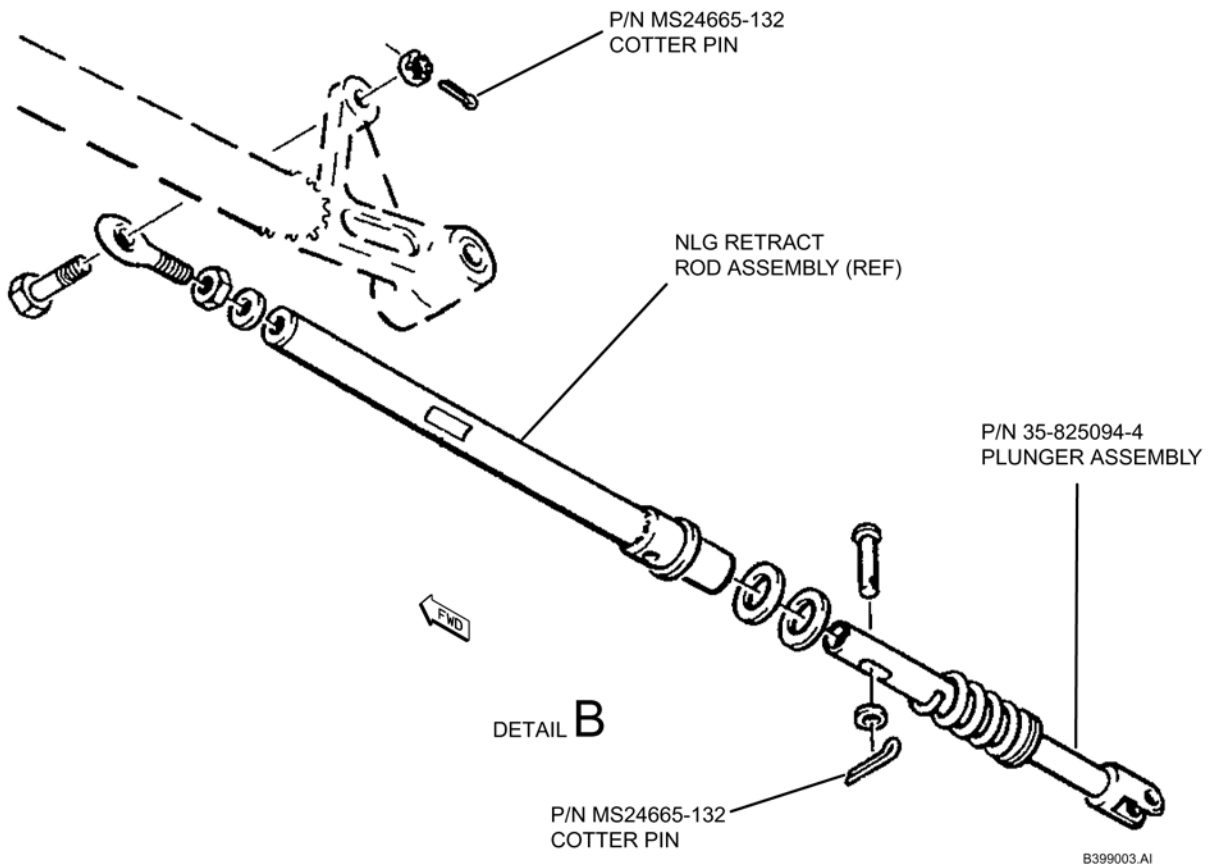
Beechcraft P/N 35-825094-4 NLG Plunger Assembly Braze Inspection

Figure 2

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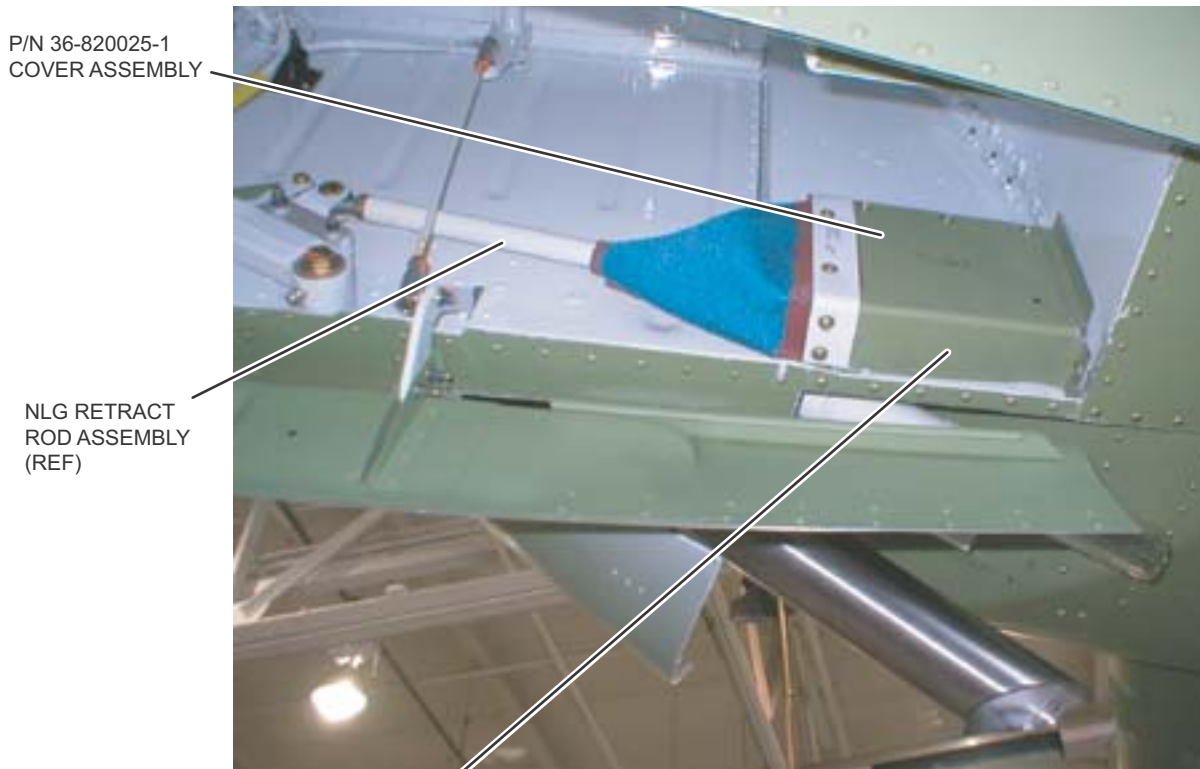


BARON MODEL SHOWN, OTHER
MODEL NLG INSTALLATIONS SIMILAR



Location of NLG Plunger Assembly
Figure 3

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ACCESS FOR REMOVING AFT BOLT



Bonanza

Access Points for Removal of Retract Rod Assembly in Nose Wheel Well

Figure 4

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Access Points for Removal of Retract Rod Assembly in Nose Wheel Well

Figure 5