

SERVICE BULLETIN

Beechcraft

TITLE: FLIGHT CONTROLS- RUDDER CABLE PULLEY BRACKET INSPECTION/REPAIR

1. Planning Information

A. Effectivity

(1) Airplanes

BEEHCRAFT Model 36 Bonanza, Serials E-3506 through E-3629 and E-3631 through E-3635;

BEEHCRAFT Model G36 Bonanza, Serials E-3630, E-3651, E-3658 and E-3667;

BEEHCRAFT Model 58 Baron, Serials TH-2060 through TH-2124;

BEEHCRAFT Model G58 Baron, Serials TH-2125 through TH-2136.

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

(2) Spares

None.

B. Reason

This Service Bulletin is being issued to inspect for P/N 002-440010-19 rudder cable pulley bracket that may have an elongated, misdrilled hole. An elongated hole may allow the pulley guard pin to shift in position and possibly cause inadequate cable guarding. During control system maintenance, inadequate cable guarding could allow displacement of the control cables.

C. Description

The P/N 002-440010-19 pulley bracket is inspected for damage in the form of elongated holes from improper drilling. If elongated holes are found, replace the existing P/N NAS427K11 pulley guard pin with a P/N MS20392-2C29 clevis pin, NAS1149F0332P washer and MS24665-132 cotter pin. Verify the rudder control cable is routed correctly under the pin.

D. Compliance

Raytheon Aircraft Company recommends that this Service Bulletin be accomplished at the next scheduled inspection.

The export of these commodities, technology or software are subject to the US 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 202-482-4811 or at www.bxa.doc.gov.

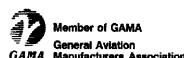
Raytheon Aircraft Company (RAC) issues Service Information for the benefit of owners and fixed base operators in the form of two classes of Service Bulletins. The first class, Mandatory Service Bulletins (red border) includes changes, inspections and modifications that could affect safety or crashworthiness. RAC 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, RAC 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 mailed to:

- (a) RAC Authorized Service Centers.
- (b) Owners of record on the FAA Aircraft Registration Branch List and the RAC International Owner Notification/Registration Service List.
- (c) Those having a publications subscription.

Information on Owner Notification Service or subscription can be obtained through any RAC Authorized Service Center. As Mandatory Service Bulletins and Service Bulletins are issued, temporary notification in the Service Bulletin Master Index should be made until the index is revised. Warranty will be allowed only when specifically defined in the Service Bulletin and in accordance with the RAC Warranty Policy.

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



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E. Approval

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

F. Manpower

The following information is for planning purposes only:

Estimated man-hours to inspect the P/N 002-440010-19 rudder cable pulley bracket: 1.0 hours.

Estimated man-hours to accomplish modification of the pulley guard pin installation: 0.25 hours.

Suggested number of men: 1 man.

The above is an estimate based on experienced, properly equipped personnel complying with this Service Bulletin. Occasionally, after work has started, conditions may be found which 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

Not changed.

I. Software Accomplishment Summary

Not applicable.

J. References

Raytheon Aircraft Company, BEEHCRAFT Bonanza Series Maintenance Manual, P/N 36-590001-9A29 or subsequent revision, Chapters 20, 24, 25, and 27;

Raytheon Aircraft Company, BEEHCRAFT Baron 55 and 58 Shop Manual, P/N 55-590000-13E25 or subsequent revision, Sections 2, 3, 4, and 13.

K. Publications Affected

It is recommended that a note "See Service Bulletin No. 27-3789" be made in the following:

Raytheon Aircraft Company, BEEHCRAFT Bonanza 36 Illustrated Parts Catalog, P/N 36-590001-1H2 or subsequent revision, Chapter 53-10;

Raytheon Aircraft Company, BEEHCRAFT Baron B55/E55/58/G58 Illustrated Parts Catalog, P/N 58-590000-19G or subsequent revision, Chapter 53-18.

L. Interchangeability of Parts

Not applicable.

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M. Warranty Credit

Warranty credit for labor and parts to the extent noted under MANPOWER and MATERIAL will be allowed on all affected airplanes.

Warranty coverage offered in this Service Bulletin will expire 12 months from the last day of the month this Service Bulletin is issued. After that date, the owner/operator assumes the responsibility for compliance cost. Raytheon Aircraft Company reserves the right to void warranty coverage in the area affected by this Service Bulletin until the date the Service Bulletin is accomplished by a Raytheon Aircraft Company Authorized Service Center.

All warranty work must be accomplished by a Raytheon Aircraft Authorized Service Center rated to perform maintenance on the specific model of Beechcraft Airplane.

All warranty reimbursements are handled through Raytheon Aircraft Company Authorized Service Centers. The owner/operator should arrange for an Authorized Service Center to perform the work and the Authorized Service Center must submit the standard Raytheon Aircraft Company warranty claim.

2. Material Information

A. Materials - Price and Availability

Contact a Raytheon Aircraft Authorized Service Center for information.

B. Industry Support

Not applicable.

C. Airplanes

The following parts required for this modification may be ordered through a Raytheon Aircraft Authorized Service Center, RAPID or may be obtained locally:

Part Number	Description	Quantity Per Airplane
MS20392-2C29 (NASM20392)	Pin, Straight, Headed, Drilled Shank (Clevis)	As Required
MS24665-132 (NASM24665)	Pin, Cotter (Split)	As Required
NAS1149F0332P (AN960-10L)	Washer, Flat	As Required

D. Spares

Not applicable.

E. Reidentified Parts

None.

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F. Tooling - Price and Availability

Not applicable.

3. Accomplishment Instructions

This Service Bulletin shall be accomplished as follows:

NOTE

Should any difficulty be encountered in accomplishing this Service Bulletin, contact Raytheon Aircraft Company at 1-800-429-5372 or 316-676-3140.

A. Airplane

WARNING

Observe all Warnings and Cautions contained in the aircraft 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.

- (1) Remove all power from the airplane and disconnect the battery. Refer to Chapter 24 of the BEECHCRAFT Bonanza Series Maintenance Manual or Sections 2 and 13 of the BEECHCRAFT Baron 55 and 58 Shop Manual for external power and battery disconnect procedures. Display warning notices prohibiting reconnection of airplane electrical power.
- (2) In the aft fuselage, gain access to the affected rudder cable pulley bracket inspection area by removing seats, floorboard panels, equipment, and attaching hardware, as required. Refer to Chapter 25 of the BEECHCRAFT Bonanza Series Maintenance Manual or Section 3 of the BEECHCRAFT Baron 55 and 58 Shop Manual.
- (3) Between F.S. 151.00 and F.S. 179.00, locate the area where the suspect pulley guard pin holes are in the P/N 002-440010-19 rudder cable pulley bracket. The P/N 002-440010-19 rudder cable pulley bracket is canted inboard. Refer to Figure 1.

NOTE

The inspection area may not be clearly visible. It may be necessary to use a flashlight and small inspection mirror as inspection aids to determine if an elongated hole or improper drilling of the pulley guard pin holes exists.

- (4) Inspect the existing holes in both sides of P/N 002-440010-19 pulley bracket for the P/N NAS427K11 pulley guard pin for an elongated hole or misdrilling condition. If the holes do not exhibit any evidence of elongation or misdrilling, proceed to step (6). If the holes show evidence of elongation/misdrilling, proceed to step (5).

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- (5) Replace the existing P/N NAS427K11 pulley guard pin with an MS20392-2C29 clevis pin, NAS1149F0332P washer and MS24665-132 cotter pin. Refer to Figure 1.

WARNING

If any portion of the rudder control system is disconnected, adjusted, installed, or replaced during accomplishment of this Service Bulletin, the rudder control system must be rigged in accordance with Chapter 27 of the BEEHCRAFT Bonanza Series Maintenance Manual or Section 4 of the BEEHCRAFT Baron 55 and 58 Shop Manual.

- (6) Inspect the rudder control cable for condition and verify it is routed correctly under the pulley guard pin or clevis pin. Refer to Chapters 20 and 27 of the BEEHCRAFT Bonanza Series Maintenance Manual or Section 4 of the BEEHCRAFT Baron 55 and 58 Shop Manual for control cable rigging or replacement criteria.
- (7) Install seats, floorboard panels, equipment, and attaching hardware, as required, that were removed in step (2). Refer to Chapter 25 of the BEEHCRAFT Bonanza Series Maintenance Manual or Section 3 of the BEEHCRAFT Baron 55 and 58 Shop Manual.
- (8) Ensure all work areas are clean and clear of tools and miscellaneous items of equipment.
- (9) Reconnect the airplane battery, remove warning notices and restore power. Refer to Chapter 24 of the BEEHCRAFT Bonanza Series Maintenance Manual or Sections 2 and 13 of the BEEHCRAFT Baron 55 and 58 Shop Manual for external power and battery reconnect procedures.
- (10) Make an appropriate logbook entry.
- (11) Return airplane to service.

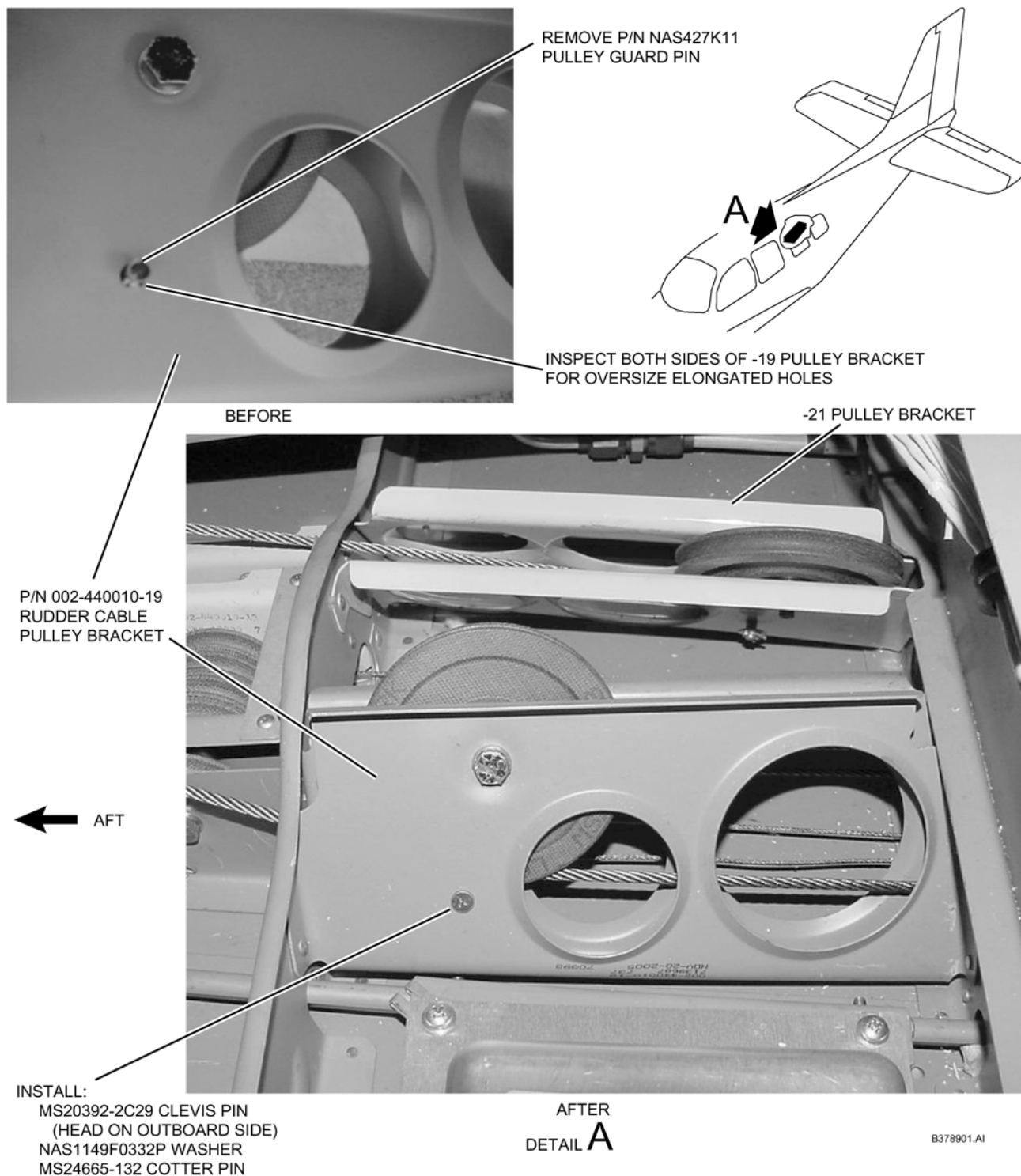
B. Spares

Not applicable.

C. Record of Compliance

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

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Installation of the Pulley Guard Pin in the Rudder Cable Pulley Bracket

Figure 1