

MANDATORY SERVICE BULLETIN

SUBJECT: Rudder Pulley Bracket Inspection

REVISION: 00

DATE: 06/09/2015

EFFECTIVITY: KODIAK[®] 100 Series Airplane Serial Numbers 100-0082 thru 100-0107

SUMMARY

The accompanying Field Service Instruction provides procedures for inspection of one of the rudder pulley brackets for incorrect manufacture and resultant wear.

Document Number	Document Title
FSI-116	Rudder Pulley Bracket Inspection

COMPLIANCE

This Mandatory Service Bulletin must be complied with on or before the next 100 Hour Inspection or Annual Inspection, whichever comes first.

FAA APPROVAL STATUS

The inspection and resultant replacement of the control system components (if required) to the affected airplane described above has been shown to comply with the applicable FAA regulations and is FAA approved.

SPECIAL INSTRUCTIONS

If the inspection reveals faulty or damaged components as outlined in *FSI-116 – Rudder Pulley Bracket Inspection*, Quest will supply one service kit *FSI-117 Rudder Pulley Bracket Assembly Replacement* per aircraft at no cost to the owner.

CREDIT AND WARRANTY INFORMATION


Quest Aircraft Company will reimburse up to one-half hour of labor costs associated with the Rudder Pulley Bracket Assembly Inspection outlined in FSI-116. Quest will supply one service kit FSI-117 per airplane in the serial number range stated above, at no cost to the owner, and will reimburse up to four (4) hours of labor associated with implementing *FSI-117 – Rudder Pulley Bracket Assembly Replacement*. Contact Quest Customer Service to order service kit FSI-117. Refer to our website at www.questaircraft.com for warranty claim reimbursement instructions.

Quest Customer Service

Phone: (208) 263-1111 **Toll Free:** 1 (866) 263-1112

Email: customerservice@questaircraft.com

Quest Aircraft Company, L.L.C., 1200 Turbine Drive, Sandpoint, ID 83864

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Rudder Pulley Bracket Assembly Inspection

SERIAL RANGE:

100-0082 thru 100-0107

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SUBJECT

This instruction provides procedures for the inspection of the rudder pulley bracket assembly located in the aft end of the airplane. Inspect rudder pulleys for wear and rudder cables for damage or corrosion.

WEIGHT AND BALANCE

N/A

MANPOWER

Estimated Man-hours: 0.5 hour

Minimum Persons: 1 person

Man-hour estimates are based on the minimum personnel required. As appropriate, Quest encourages the use of additional personnel, which may reduce the actual man-hours.

“Minimum Persons” refers only to maintenance personnel or installers, and unless otherwise specified within this instruction does not include additional personnel who may be needed solely to comply with safety requirements (for example, safety observers who are not performing tasks within this instruction). It is the responsibility of maintenance personnel to comply with safety requirements, including having a safety observer available as needed.

Quest Aircraft Company, L.L.C.
1200 Turbine Drive
Sandpoint, ID 83864

⚠ DISCLAIMER ⚠


The instructions / procedures presented herein are based upon the systems and components of the aircraft when it was delivered from the factory, or as modified by Quest Service Bulletins. Third-party modifications that have affected any component, system, or operating characteristic discussed by this document may invalidate the instructions / procedures provided. Before performing the instructions / procedures herein, examine all Supplemental Type Certificate (STC) or equivalently authorized modifications to verify that the instructions/procedures presented in this document can be properly completed. If an aircraft has an STC or equivalently authorized modification that affects any component, system, or operating characteristic also affected by this document, the operator is responsible for obtaining appropriate regulatory approval before performing the instructions / procedures herein. Quest Aircraft Company cannot be responsible for the quality of work performed in accomplishing the requirements of this document.

If you have any questions as to the applicability of this document to your specific aircraft, contact Quest Customer Service by telephone at (208) 263-1111, toll-free at (866) 263-1112, or via email at CustomerService@QuestAircraft.com

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REVISION RECORD

REV	PAGE	CHANGE DESCRIPTION
00	All	Initial Release

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1. Special Safety Instructions

1.1 Warnings

Failure to comply with “Warnings” contained in this instruction may result in financial loss, significant delay in the completion time, and/or serious injury to personnel.

1.2 Cautions

Failure to comply with “Cautions” contained in this instruction may result in the destruction of components, unnecessary complications, the need to reverse completed work, and/or delays in the completion time.

1.3 Notes

“Notes” are provided when additional information may lead to an increase in efficiency.

1.4 Reference Materials

This document may refer to reference manuals or documents. Any reference to these manuals or documents assumes the latest revision and should be employed when performing the work described within this document, unless otherwise specified.

2. Parts, Tools, and Equipment

The following tables describe the parts, tools, and equipment necessary to successfully complete this instruction. Where applicable, reference to drawings provided with this instruction is provided.

Table 2-1: Parts and Tools Included in the Service Kit

Item #	Part No.	Qty	Description	Drawing No.	Dwg Item #
2-1-1	N/A	N/A	N/A	N/A	N/A

Table 2-2: Consumables Included in the Service Kit

Item #	Part No.	Qty	Description	Drawing No.	Dwg Item #
2-2-1	N/A	N/A	N/A	N/A	N/A

Table 2-3: Serial-Number-Specific Parts Included in the Service Kit

Item #	Part No.	Qty	Description	Drawing No.	Dwg Item #
2-3-1	N/A	N/A	N/A	N/A	N/A

Table 2-4: Parts and Tools NOT Included in the Service Kit

Item #	Part No.	Qty	Description	Drawing No.	Dwg Item #
2-4-1	N/A	N/A	N/A	N/A	N/A



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3. General

This instruction provides procedures for the inspection of the rudder pulley bracket assembly located in the aft end of the airplane (FS 208.000) as indicated in **Figure 3-1**. Inspect rudder pulleys for wear and rudder cables for damage or corrosion.

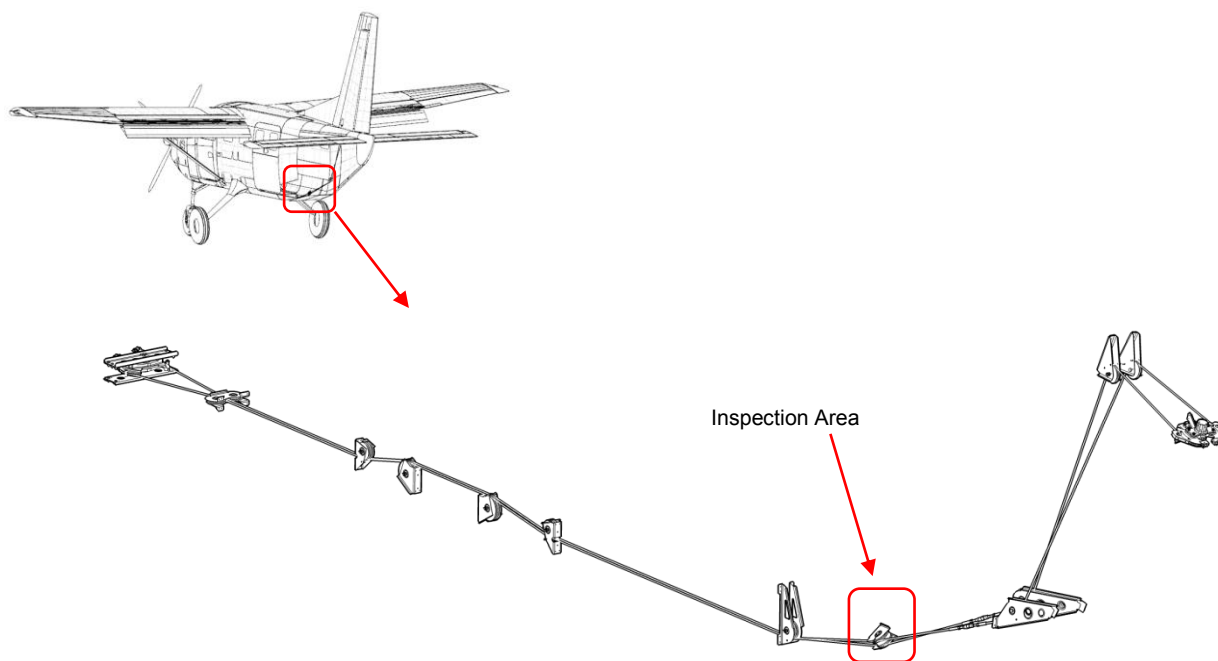


Figure 3-1: System Overview

4. Preparation

Remove the aft bulkhead in accordance with the *KODIAK[®] 100 Airplane Maintenance Manual*, Chapter 25.

5. Instructions

Inspect the rudder pulley bracket assembly and rudder cables, whose general location is indicated in **Figure 5-1**. The pulley assembly is shown in **Figure 5-2** from aft looking forward using inspection mirror.



Figure 5-1: Rudder Pulley Bracket Assembly Location



Figure 5-2: Rudder Pulley Bracket Visual Inspection



Figure 5-3: Pulley Bracket Viewed From Aft Looking Forward

5.1 Inspect for four conditions:

1. Pulleys with uneven wear, as shown in **Figure 5-4**.

NOTE

Inspect entire perimeter of pulley for wear.

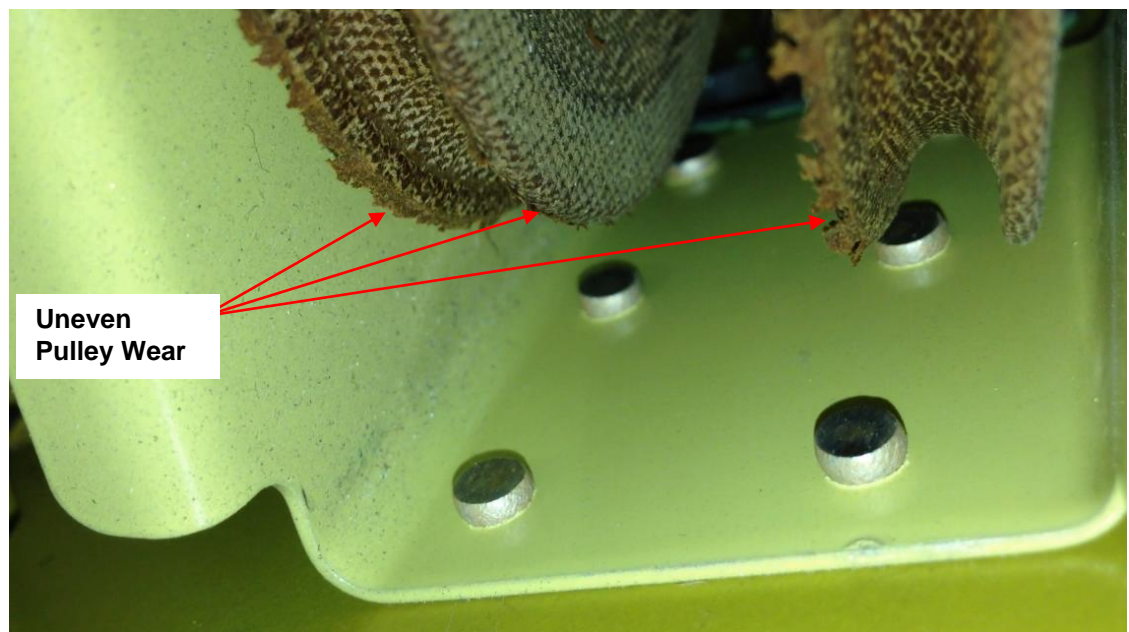


Figure 5-4: Inspection Items

2. Rudder cable damage or corrosion in accordance with the *KODIAK® 100 Airplane Maintenance Manual*, Chapter 6.

3. Cable guard making contact with pulleys or fuselage skin as shown in **Figure 5-5**.

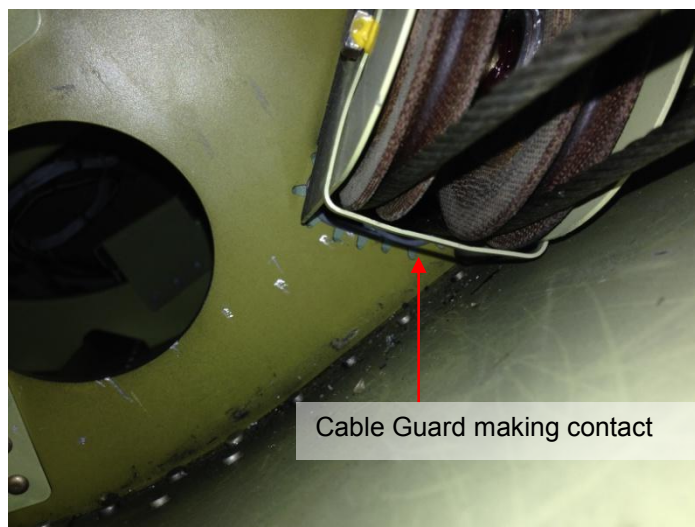


Figure 5-5: Cable Guard

▲ NOTE ▲

Misshapen cable guard is acceptable if not making contact with pulleys or skin.

4. If either the first or second condition exists, inspect rudder cable pulley bracket for the dimensions shown in **Figure 5-6**. The dimension from the center of the riveted hole to the start of the inner bend radius must be 0.28 inch to 0.034 inch.

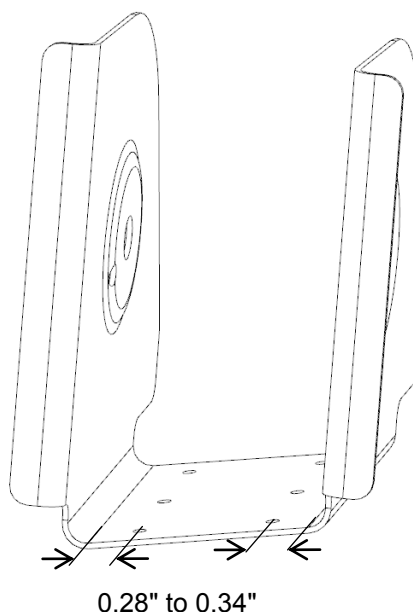


Figure 5-6: Correctly Dimensioned Bracket



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5.2 Required Actions:

1. If the rudder pulley bracket does not meet the criteria above, order FSI-117 Rudder Pulley Bracket Assembly Replacement to be performed at or before the next Annual or 100 Hour Inspection.
2. If there is uneven wear (Condition 1), but the rudder pulley bracket meets the criteria in **Figure 5-6**, contact Quest Customer Service.
3. If there is cable damage or corrosion (Condition 2), but the rudder pulley bracket meets the criteria in **Figure 5-6**, order and replace rudder cables in accordance with the *KODIAK[®] 100 Airplane Maintenance Manual*. Notify Quest Customer Service of findings.
4. If the cable guard is making contact with the pulleys or fuselage skin (Condition 3), modify or replace the cable guard so there is no contact between the cable guard and the pulleys or skin.

6. Completion

6.1 Restore Airplane to Airworthy Condition

Replace aft bulkhead in accordance with the *KODIAK[®] 100 Airplane Maintenance Manual*, Chapter 25.

6.2 Records of Completion

Update the appropriate KODIAK[®] 100 maintenance records.

6.3 Applicable Manual Revisions/Updates

None.

▲ NOTE ▲

Quest Aircraft Company recommends updating the approved *KODIAK 100[®] Pilot's Operating Handbook and Airplane Flight Manual* (AM901.0) and any applicable supplements to the latest revisions, and maintaining the aircraft in accordance with the latest approved *Airplane Maintenance Manual* (AM902.0). Contact Quest Aircraft Customer Service with any questions related to maintenance material.

---END---