

**\*MANDATORY SERVICE BULLETIN\***

**NUMBER:** SB11-06  
**REVISION:** 01  
**DATE:** 06/01/2011

**SUBJECT:** RUDDER TRIM MOTOR INSPECTION

**EFFECTIVITY:**

KODIAK 100 Series Aircraft Serial Numbers: 100-0001 through 100-049

**SUMMARY:**

Quest is mandating a one time inspection of the screws securing the rudder trim motor to the rudder trim gear box housing. A single report has been received indicating that screws of insufficient length may have been used to install the rudder trim motor. The instructions contained within this Service Bulletin detail the inspection process, as well as, the installation instructions of new hardware if needed.

**ACTION:**

Quest is mandating a one time inspection of the screws securing the rudder trim motor to the rudder trim gear box housing. Refer to **Figure 1-1**.

**COMPLIANCE:**

This Service Bulletin must be complied with by the next 100 hour and/or annual inspection.

**LOG OF CHANGES:**

Revision:	Date:	Description of Change:
00	05/18/2011	Initial Release
01	06/01/2011	Update to Service Bulletin Compliance.

**ATTACHED DOCUMENTS:**

Document #:	Date:	Document Title:
N/A	N/A	N/A

**PARTS, TOOLS, AND EQUIPMENT:**

The parts, tools and equipment listed below are needed in order to complete the instructions contained within.

Parts and Tools included in this Service Bulletin:

Item	Quantity	Part Number	Description
N/A	N/A	N/A	N/A

Special Parts and Tools **Not** included in this Service Bulletin:

Item	Quantity	Part Number	Description
1	-	Loctite242®	Thread fastener/sealer (Blue)
2	-	Permatex 834-300®	Thread fastener/sealer (Blue)

**NOTE:** Either Item 1 or Item 2 are acceptable to conduct the work presented in this Service Bulletin. Refer to instructions listed below for further details.



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**FAA APPROVED:**

The inspection and modification described in this Mandatory Service Bulletin has shown compliance with the applicable Federal Aviation Regulations and is FAA Approved.

**INDUSTRY SUPPORT INFORMATION:**

N/A

**WEIGHT AND BALANCE:**

Negligible

**CREDIT AND WARRANTY INFORMATION:**

N/A

**Quest Customer Service**

**Service Bulletin SB11-06**

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

**Email: [Customercare@questaircraft.com](mailto:Customercare@questaircraft.com)**

**COMPLETION:**

Record the work performed in the *KODIAK 100 Maintenance Records*.

**ACCOMPLISHMENT INSTRUCTIONS:**

Accomplishment Instructions are listed in the next section of this Service Bulletin.

**MANPOWER:**

The instructions contained in this Mandatory Service Bulletin will take approximately:

- 10 Minutes (Inspection)
- 30 Minutes (Hardware Replacement, if needed)

**ATTACHED DOCUMENTS:**

N/A

**SPECIAL INSTRUCTIONS:**

 **NOTE:** Refer to the *KODIAK 100 Maintenance Manual, Chapter 20 Standard Practices* for torque specifications.

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# 1. RUDDER TRIM MOTOR INSPECTION INSTRUCTIONS

1. Turn the master switch to the *OFF* position.
2. Disconnect the electrical connection located at the top of the rudder trim motor assembly as shown in **Figure 1-1, Detail A**.
3. Using a bright light, inspect the screws securing the rudder trim motor (P/N **100-820-6175**) to the rudder trim gear box housing (P/N **100-617-2182**) through the access hole in the top of rudder trim gear box housing (P/N **100-617-2182**).
  - A. If drilled head screws are present, reconnect the electrical connection located at the top of the rudder trim motor assembly and contact Quest Customer Service for three (3) replacement parts (P/N **NA0274-030006**). Once replacement parts have been obtained, proceed to **Section 2**.
  - B. If the screws have non-drilled heads, reconnect the electrical connection located at the top of the rudder trim motor assembly and proceed to **Section 3**.

## 2. DRILL HEAD SCREW REPLACEMENT

### 2.1 REMOVAL OF THE RUDDER TRIM MOTOR COMPONENTS

1. Turn the master switch to the *OFF* position.
2. Disconnect the electrical connection located at the top of the rudder trim motor assembly as shown in **Figure 1-1, Detail A**.
3. Loosen and remove the four (4) bolts (P/N **AN3-3A**), four (4) nuts (P/N **MS21044N3**) and four (4) washers (P/N **NAS1149F0332P**) securing the rudder trim gearbox cover plate (P/N **100-617-2183-D01**) into position.
4. Remove the snap ring (P/N **MS16624-1025**) and thrust bearing (P/N **MTI-04**) securing the rudder trim gearbox cover plate (P/N **100-617-2183-D01**) to the pinion drive motor, and remove the rudder trim gearbox cover plate (P/N **100-617-2183-D01**). Refer to **Figure 1-1, Detail B**.
5. Individually remove the three (3) screws (P/N **NA0274-030005H**) and three (3) washers (P/N **MS15795-803**) securing the small gearbox (P/N **100-820-6175**) to the mounting bracket (P/N **100-617-2176**). Apply a thread fastening/sealing agent, and reinstall the replacement screw (P/N **NA0274-030006**) and washer (P/N **MS15795-803**) before proceeding to the next screw.
6. Position the rudder trim gearbox cover plate (P/N **100-617-2183-D01**) and secure using the four (4) bolts (P/N **AN3-3A**), four (4) nuts (P/N **MS21044N3**), and four (4) washers (P/N **NAS1149F0332P**)
7. Reinstall the thrust bearing (P/N **MTI-04**) and the snap ring (P/N **MS16624-1025**), securing the rudder trim gearbox cover plate (P/N **100-617-2183-D01**) to the pinion drive motor.
8. Reconnect the electrical connection located at the top of the rudder trim motor assembly.

## 3. RECORD WORK PERFORMED IN KODIAK LOG BOOKS

Upon completion, record all work performed in the appropriate KODIAK maintenance records.

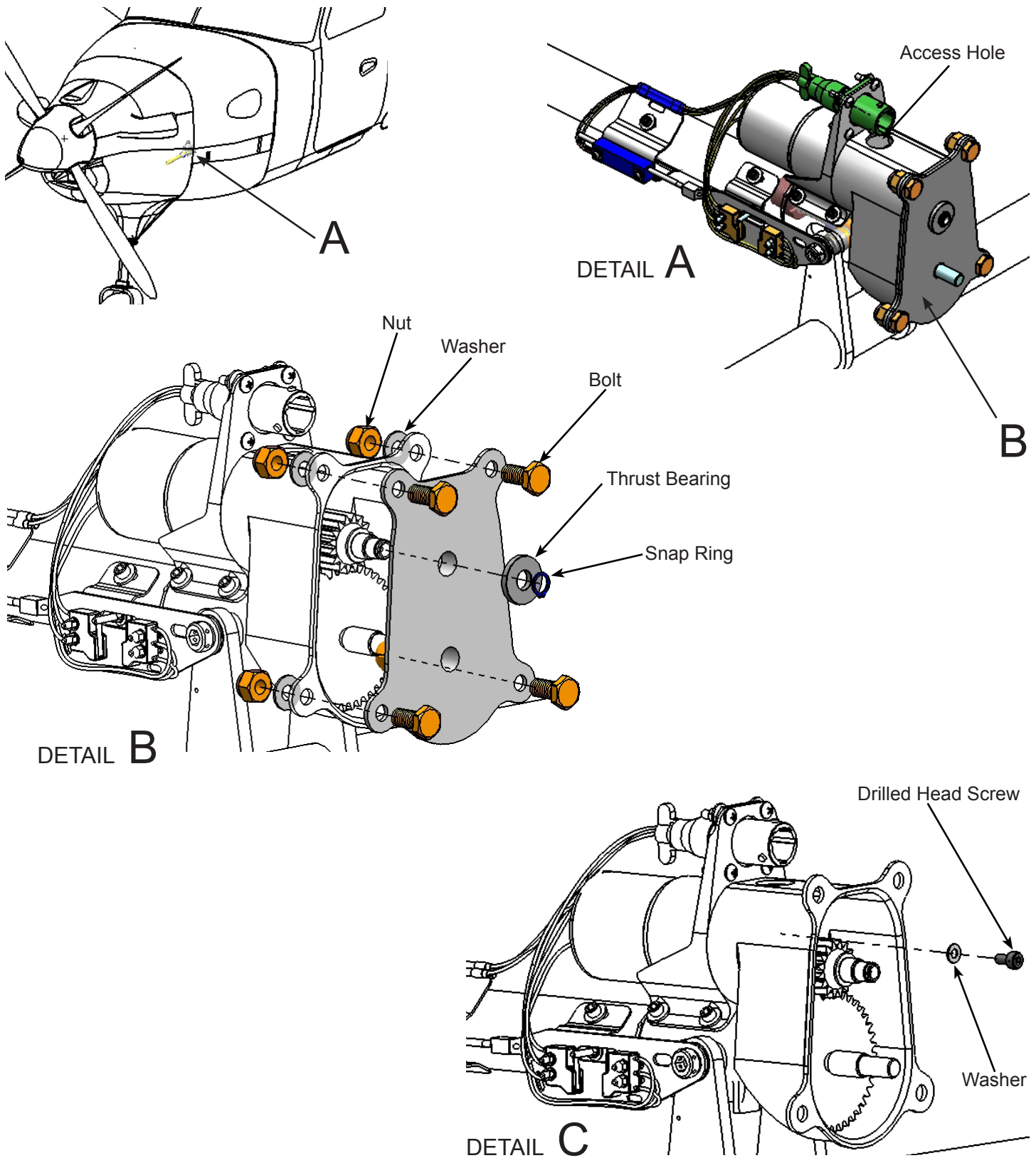


Figure 1-1: Rudder Trim Motor Inspection and Drilled Head Screw Replacement