

# SERVICE BULLETIN

**AA-SB-27-004**

## **Stabilator Hinges – Inspection & Re-torque**

### **1. PLANNING INFORMATION**

#### **1.1. EFFECTIVITY**

All R2160 aircraft s/n 106A-06001 to 160A-07011 and R2160i s/n 160i-07007.

#### **1.2. CONCURRENT REQUIREMENTS**

Nil

#### **1.3. REASON**

A maintenance organization has reported an instance where a stabilator hinge bracket P/N 32-23-08-000 was found to be loose and the torque on the attaching bolts to be low. The cause for the low torque appears to have been due to the heads of anchor nut rivets sitting proud of the spar face which caused fretting and a reduction in clamping forces.

As a safety precaution it is recommended to carry out the checks and inspection detailed in 1.5 below.

#### **1.4. DESCRIPTION**

The torque on the stabilator hinge bracket attaching bolts may be below the specified value, allowing movement of the stabilator hinge brackets.

#### **1.5. COMPLIANCE**

On receipt of this SB inspect aircraft for compliance within the next 5 hours of operation.

Check for movement of the hinge brackets by applying an up and down load at the stabilator tip at both L & RH sides.

- If no movement of hinge is detected the aircraft can remain in service but carry out the inspection in section 2 **Accomplishment Instructions** at the next 100 hour routine inspection.
- If movement is detected: carry out the inspection in section 2 **Accomplishment Instructions** before further flight.

Make a log book entry stating compliance with this Service Bulletin. The entry shall identify the action taken to satisfy this Service Bulletin.

#### **1.6. APPROVAL**

NZ CAA

#### **1.7. WEIGHT AND BALANCE**

Nil affect on weight or balance

#### **1.8. REFERENCES**

R2000 Service Manual.

#### **1.9. OTHER PUBLICATIONS AFFECTED**

Nil

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### **2. ACCOMPLISHMENT INSTRUCTIONS**

Inspection:- Remove L & RH access panels (Service Manual Fig 2-3 item 8) Inspect the stabilator hinge brackets for signs of movement. See fig 1 below for installation of the stabilator hinges. Check the torque on the bracket attaching bolts (the minimum torque is 44 inlb). If there are signs of movement or the torque is below the required figure then the brackets must be removed to identify if anchor nut attaching rivets are proud of the spar face. Prior to removing the bracket, it may be advisable to mark its position to facilitate re-installation in the same position.

Slacken stabilator control cables in accordance with Service Manual section 5.6. Place padded support under stabilator and on top of horizontal bulkhead then remove stabilator hinge bolts and lower stabilator onto pad. Note it may be necessary to disconnect the anti-servo tab linkage to gain full access, see Service Manual section 5.7.

Examine rivet heads, spot face any protruding rivet head. Examine rear face of hinge bracket for wear caused by rivet heads. Apply primer to bare metal surfaces. Reassemble in accordance with Service Manual section 4.4.3 (Temporary revision 4/4/001 Issued 14 March 2008), and torque to 44 inlb. Reinstall stabilator and tension control cables in accordance with Service Manual section 5.6.2.2 and 5.6.3.



**Figure 1: Typical Stabilator Hinge Installation**



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### **3. FEED BACK**

Maintenance organisations are requested to provide feedback on the results of the inspection. Please use Alpha form DES 22 (Design Feedback Form) for this purpose. A copy of the form and mailing details can be found in the Service Manual.

#### **Contact Information:**



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