



A Textron Company

## **ALERT SERVICE BULLETIN**

**407-23-133**

25 January 2024

**MODEL AFFECTED:** 407

**SUBJECT:** HORIZONTAL STABILIZER AND CARGO HOOK  
FITTINGS – SELF LOCKING INSERTS,  
INSPECTION OF

**HELICOPTERS AFFECTED:** **PART I:** Serial numbers 53000 through 53900,  
53911 through 53999, 54000 through 54166, 54300  
through 54800, 54805 through 54999, and 56300  
and subsequent.

[Serial number 54955, 54977, 54978, 54980, 54981,  
54983 through 54985, 54987, 54988, 54991 through  
54999, and 56301 and subsequent are not affected  
by **PART I** of this bulletin if fitted with the original  
tailboom and/or horizontal stabilizer assemblies.]

**PART II:** Serial numbers 53000 through 53900,  
53911 through 53999, 54000 through 54166, 54300  
through 54800, 54805 through 54999, and 56300  
through 56335.

**COMPLIANCE:** **PART I:** Within 100 flight hours or 3 months, whichever  
occurs first, and every 300 flight hours or 12 months,  
whichever occurs first thereafter following the release  
date of this bulletin.

**PART II:** Within 300 hours or 12 months, whichever  
occurs first, following the release date of this bulletin.

### **DESCRIPTION:**

Bell was made aware that some self-locking inserts installed on the horizontal stabilizer and inserts of the cargo hook fitting attachments may potentially have been damaged during assembly. The self-locking feature of the affected inserts could potentially be below the minimum tare torque value.

**PART I** of this bulletin mandates the inspection of the fasteners installed on the horizontal stabilizer to determine if they have loosened.

Serial numbers 54146 through 54166, 54452 through 54954, 54956 through 54976, 54979, 54982, 54986, 54989 through 54990, and 56300 through 56312 are directly affected by this ASB if fitted with the original tailboom and/or horizontal stabilizer.

Tailboom and/or horizontal stabilizer assemblies associated with **PART I** helicopter serial numbers may have potentially been moved to a helicopter outside the above serial number range. These tailboom and/or horizontal stabilizer assemblies are also affected by this ASB.

**NOTE:** This bulletin also applies to all helicopter serial numbers if unable to determine if the tailboom and/or stabilizer were the original assemblies installed.

**PART II** of this bulletin applies only to the aircraft fitted with the cargo hook provisions kit. It mandates an inspection of the fasteners attaching the cargo hook fittings and the safetying of the fasteners if required.

Applicability of this bulletin to any spare part shall be determined prior to its installation on an affected helicopter.

#### **APPROVAL:**

The engineering design aspects of this bulletin are Transport Canada Civil Aviation (TCCA) approved.

#### **CONTACT INFO:**

For any questions regarding this bulletin, please contact:

Bell Product Support Engineering  
Tel: 1-450-437-2862 / 1-800-363-8023 / [productsupport@bellflight.com](mailto:productsupport@bellflight.com)

#### **MANPOWER:**

Approximately 2.0 man-hours are required to complete **PART I** of this bulletin.  
Approximately 2.0 man-hours are required to complete **PART II** of this bulletin.  
This estimate is based on hands-on time and may vary with personnel and facilities available.

#### **WARRANTY:**

There is no warranty credit applicable for parts or labor associated with this bulletin.

**MATERIAL:****Required Material:**

The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty (Note)</u>
NAS6603H4	Bolt	16 (1)
MS27039-1-05	Screw	32 (1)
MS27039-1-06	Screw	16 (1)
MS27039-1-07	Screw	16 (1)
NAS1149D0316K	Washer	A/R (2)
NAS1149D0316J	Washer	A/R (2)

**NOTES:**

1. A maximum quantity of 16 or 32 may be required depending on the inspection results.
2. Existing washers may be reused if they are serviceable.

**Consumable Material:**

The following material is required to accomplish this bulletin, but may not require ordering, depending on the operator's consumable material stock levels. This material may be obtained through your Bell Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty (Note)</u>	<u>Reference *</u>
Commercial	Polyurethane Enamel	(2)(3)	C-233
1650-03296-00	Wire, Safety CRES 0.032"	ROLL (5LB) (1)	C-405
2100-00006-00	Cleaning Compound	5 GAL (1)	C-318
2010-10938-00	Loctite 080	50 CC (1)(4)	C-320
2230-10536-00	Torque Seal Lacquer	1 OZ (1, 5)	C-049

\* C-XXX numbers refer to the consumables list in the BHT-ALL-SPM, Standard Practices Manual

**NOTES:**

1. The quantity indicated is the format the product is delivered in. Actual quantity required to accomplish the instructions in this bulletin may be less.

2. It is recommended that customers contact their local Axalta Dealer with their specific color code [https://www.axalta.com/corporate/en\\_US/contacts/customer-contacts.html](https://www.axalta.com/corporate/en_US/contacts/customer-contacts.html).
3. Polyurethane Coating (C-245) may be used as a substitute.
4. Purple Loctite 222 (C-299) may be used as an alternate.
5. 2230-10536-00 Torque Seal Lacquer (C-049) is color yellow; however, other colors are available, at customer's option as shown in the Consumables List of the Technical Publications.

#### **SPECIAL TOOLS:**

None required.

#### **WEIGHT AND BALANCE:**

Not affected.

#### **ELECTRICAL LOAD DATA:**

Not affected.

#### **REFERENCES:**

407-IPB Illustrated Parts Breakdown Chapter 53.  
407-IPBS-5 Illustrated Parts Breakdown Supplement Chapter 25.  
407-MM Maintenance Manual Chapter 53.  
407-MPI Maintenance Planning Information Chapter 05.  
BHT-ALL-SPM Standard Practice Manual Chapters 2 and 8.

#### **PUBLICATIONS AFFECTED:**

None affected.

#### **ACCOMPLISHMENT INSTRUCTIONS:**

##### **PART I: Inspection of the horizontal stabilizer**

1. Prepare the helicopter for maintenance.
2. Confirm if the horizontal stabilizer assembly is affected as per the Helicopters Affected and Description blocks of this ASB.
3. If the horizontal stabilizer isn't affected by this bulletin, proceed to step 10.
4. If the horizontal stabilizer is affected by this bulletin, proceed to step 5.
5. Thoroughly clean the areas to be inspected using cleaning compound (C-318) or equivalent (Figure 1).

6. Perform a visual inspection of the following horizontal stabilizer fasteners for signs of looseness:

-NOTE-

A gap under the screw head, cracks in the paint around the screw head, loose washer, or black fretting dust could indicate fastener looseness.

- a. Fasteners (Qty 32) attaching the horizontal stabilizer to the tailboom (Figure 1, Sheet 1).
  - b. Fasteners (Qty 16) attaching the slats to the horizontal stabilizer (Figure 1, Sheet 2).
7. If there are no signs of fasteners loosening, proceed to step 10.
  8. If any sign of fastener loosening is detected, perform the following for every suspected insert:
    - a. Remove the fastener and measure the tare torque of the insert (BHT-ALL-SPM Chapter 2, Section 2). The minimum tare torque of the inserts shall be 2.0 inch-pounds (0.23 Nm).
    - b. If the tare torque of the insert meets the minimum value, re-install the fastener ([DMC-407-A-53-02-00-00A-720A-A](#) and/or [DMC-407-A-53-02-00-01A-720A-A](#)).
    - c. If the tare torque of a specific insert is below the minimum value, do the following:
      - (1) Replace the existing fastener with a new one.
      - (2) Measure the tare torque as per step 8.a.
      - (3) If the tare torque is sufficient, install the new fastener ([DMC-407-A-53-02-00-00A-720A-A](#) and/or [DMC-407-A-53-02-00-01A-720A-A](#)).
      - (4) If the tare torque is not sufficient, apply a drop of low strength threadlocker Loctite 080 (C-320) on the threads of the new fastener, install the fastener ([DMC-407-A-53-02-00-00A-720A-A](#) and/or [DMC-407-A-53-02-00-01A-720A-A](#)) and apply a stripe of torque seal lacquer (C-049) on the affected fastener.
  9. If inserts are found with tare torque below the minimum requirement, report the results to Product Support Engineering at [productsupport@bellflight.com](mailto:productsupport@bellflight.com).

10. Make an entry in the helicopter logbook and historical service records indicating compliance with **PART I** of this Alert Service Bulletin.

## **PART II: Inspection of the cargo hook fittings**

1. Prepare the helicopter for maintenance.
2. Verify if the helicopter is fitted with the cargo hook provisions kit.
3. If the helicopter does not have the cargo hook provisions kit; proceed to step 9.
4. If the helicopter is fitted with the cargo hook provisions kit, proceed to step 5.

-NOTE-

Helicopter interior configurations will vary. Refer to applicable Instructions for Continued Airworthiness (ICA) to gain access to the inspection area.

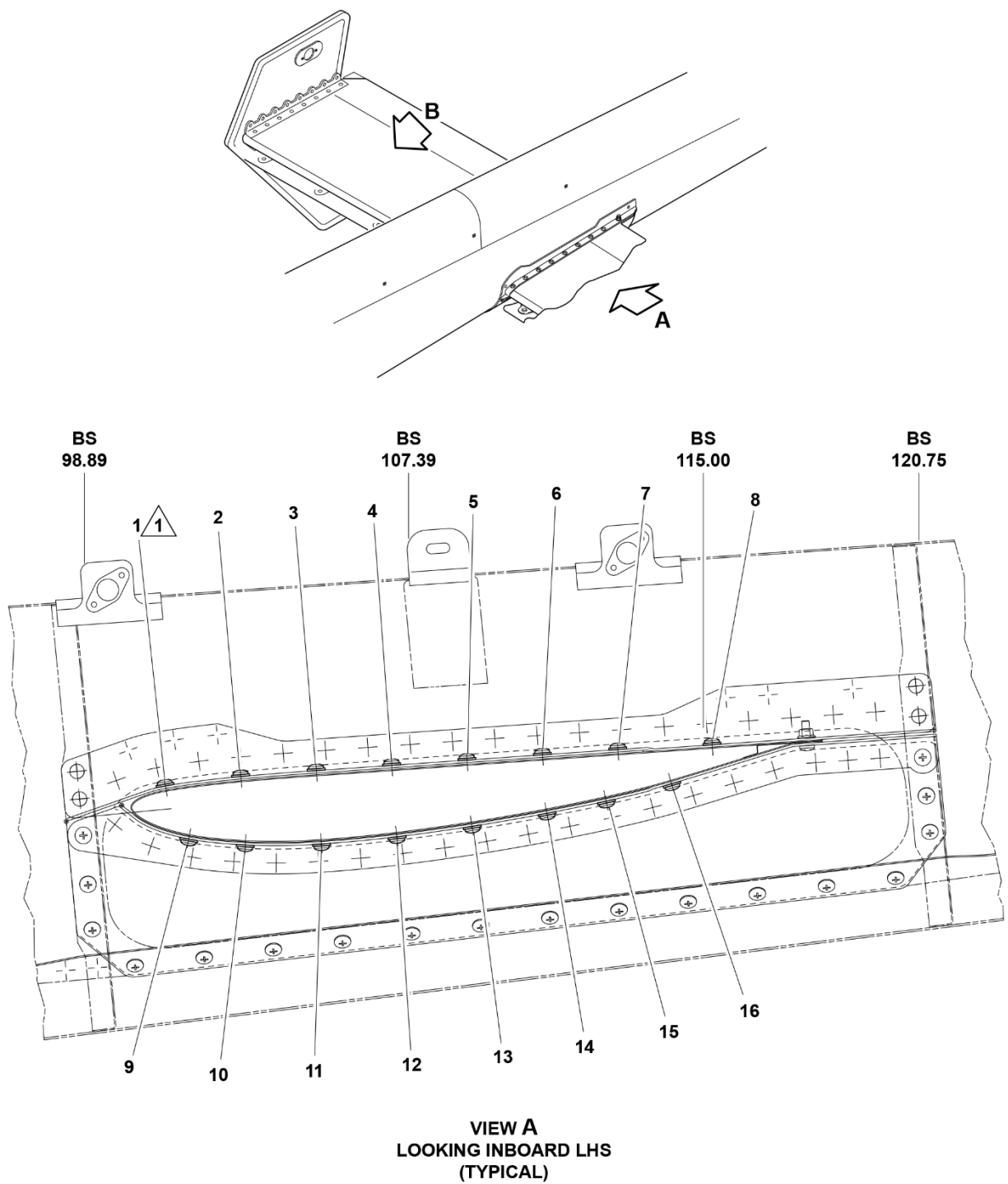
5. Verify the tare torque on the attaching fasteners (Qty 16) of the cargo hook fittings on the passenger seat bulkhead (Figure 2) as follow. Verify one fastener at a time.
  - a. Measure the tare torque of the insert (BHT-ALL-SPM Chapter 2, Section 2).
  - b. The minimum tare torque of the inserts shall be 2.0 inch-pounds (0.23 Nm).
6. If the tare torque of a specific insert does not meet the minimum value, do the following for each discrepant insert:
  - a. Remove and discard the screw installed in the discrepant insert. Retain washer if it is serviceable.
  - b. Remove and discard a screw installed in a vertically adjacent insert. Retain washer if it is serviceable.

-NOTE-

The replacement of vertically adjacent screw is only to allow safetying of bolt in the discrepant insert.

- c. Install new bolts NAS6603H4 with two washers NAS1149D0316J at the locations where the original screws were discarded.

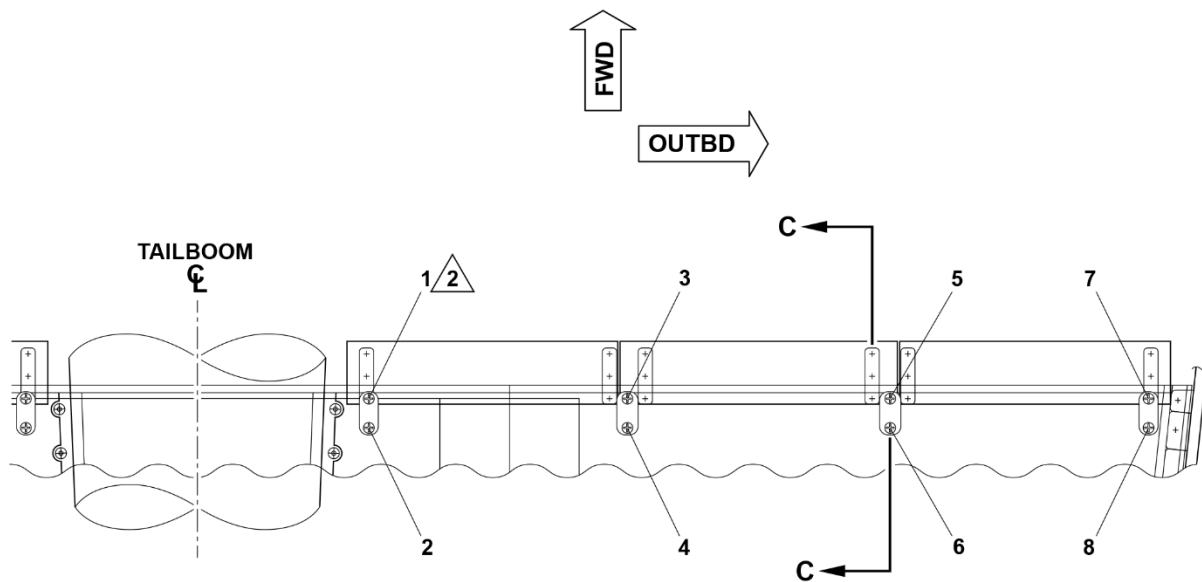
- d. Torque the bolts to 20 to 25 inch-pounds (2.3-2.8 Nm) plus tare torque.
  - e. Safety the new bolts together using (C-405) safety wire (BHT-ALL-SPM, Chapter 8).
- 7. Torque all other disturbed fasteners to 20 to 25 inch-pounds (2.3 to 2.8 Nm) plus tare torque.
  - 8. If inserts with tare torque below the minimum requirement are found, report the results to Product Support Engineering at [productsupport@bellflight.com](mailto:productsupport@bellflight.com).
  - 9. Make an entry in the helicopter logbook and historical service records indicating compliance with **PART II** of this Alert Service Bulletin.



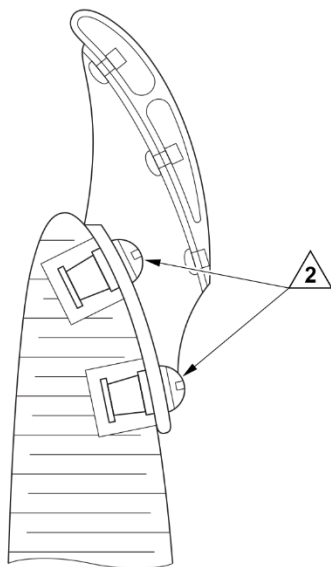
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**Figure 1 (Sheet 1 of 2) – Horizontal Stabilizer Inspection**







**VIEW B**  
VIEW LOOKING DOWN RHS  
(TYPICAL)



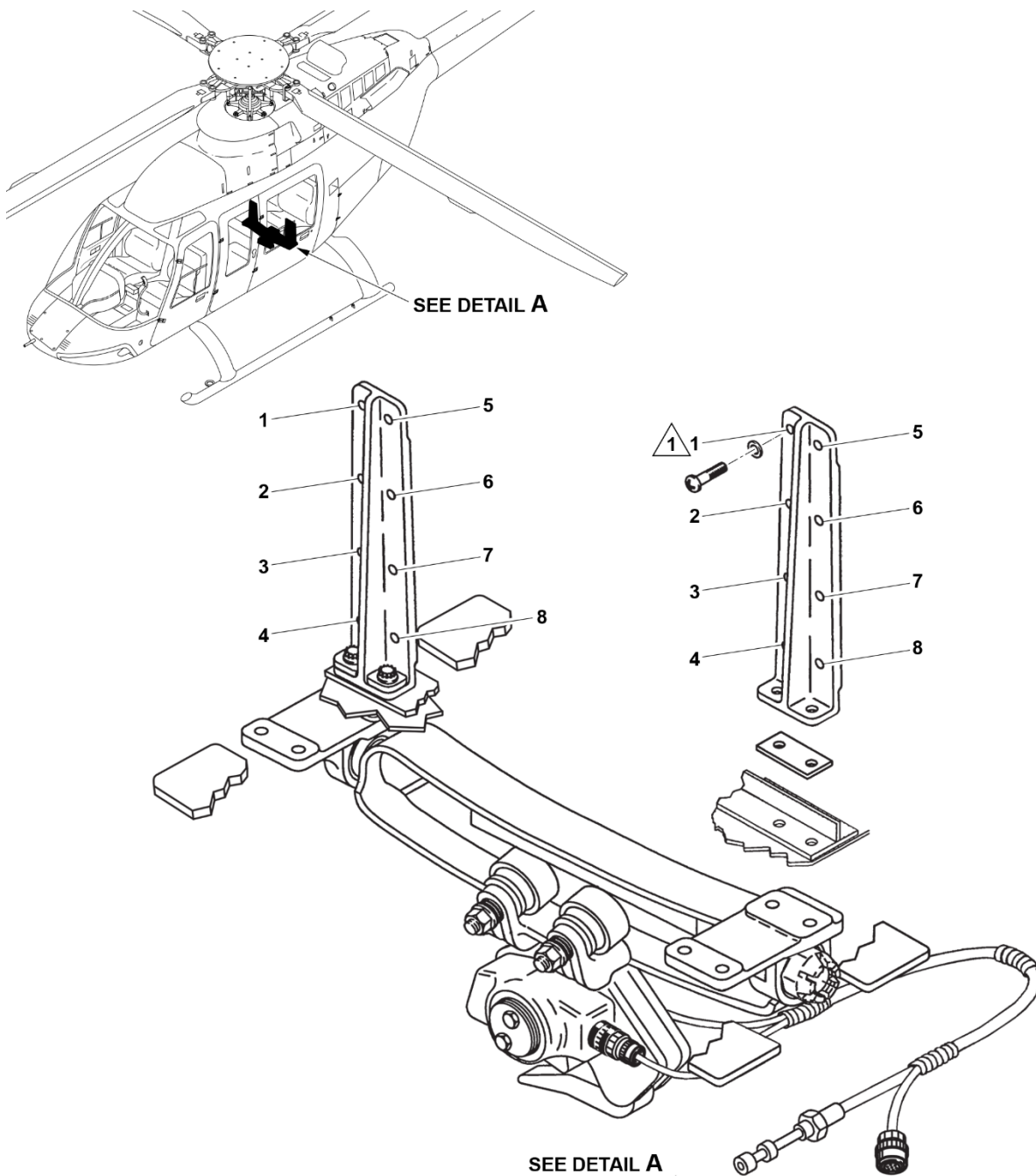
**SECTION C-C**  
(TYPICAL)

#### NOTES

-  Inspect at 16 locations on LHS and RHS
-  Inspect at 8 locations on LHS and RHS

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**Figure 1 (Sheet 2 of 2) – Horizontal Stabilizer Inspection**



**NOTE**

1 Measure tare torque at 8 locations on LHS and RHS fittings.

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**Figure 2 – Cargo Hook Fittings Inspection**