

212



### **ALERT SERVICE BULLETIN**

**212-18-160** 25 September 2018

MODEL AFFECTED:

SUBJECT: HANGER BEARING SUPPORT BRACE ASSY 205-030-831-015 INSTALLATION, VERIFICATION OF

HELICOPTERS AFFECTED: Serial Numbers 30502 through 30603, 30611 through 30999, 31101 through 31311, 32101 through 32142 and 35001 through 35103.

**COMPLIANCE:** Within the next 600 flight hours or 12 months, whichever occurs first after the release date of this bulletin.

# DESCRIPTION:

Bell has received reports of the tail rotor driveshaft hanger bearing support brace assemblies 205-030-831-015 being installed incorrectly. The braces may not have been adjusted or shimmed correctly during manufacturing. Bell found that in some cases, the spot face on the support 205-030-236-009, where the upper end of the brace assembly attaches, may not be perpendicular with the bolt hole. This condition may also contribute to the incorrect installation. The spot face anomaly is considered negligible, and all supports in this condition can remain in service as is.

This ASB mandates that the brace assembly installation be inspected and adjusted as necessary in accordance with the instructions from the accomplishment section of this bulletin. Applicability of this bulletin to any spare part shall be determined prior to its installation on an affected helicopter.

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# **APPROVAL:**

The engineering design aspects of this bulletin are FAA approved for FAA certified helicopters as listed in the applicable Type Certificate Data Sheet. For non FAA certified helicopters, the engineering design aspects of this bulletin are Bell Engineering approved.

## CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Product Support Engineering - Medium Helicopters Tel: 450-437-6201 / 1-800-363-8028 / psemedium@bellflight.com

### MANPOWER:

Approximately 4.0 man-hours are required to complete this bulletin. This estimate is based on hands-on time and may vary with personnel and facilities available.

#### WARRANTY:

There is no warranty applicable 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.

Part Number	<u>Nomenclature</u>	<u>Qty (Note)</u>
120-035-32-9	Shim, Laminated, 0.062" thick	AR (1)
120-038-32-9	Shim, Laminated, 0.125" thick	AR (1)

**NOTE 1:** Number of shims required will be based on requirements, refer to accomplishment instructions.

#### **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.

Part Number	Nomenclature	<u>Qty (Note)</u>	<u>Reference *</u>
2000-09182-01	Adhesive	AR (1)	C-317
2010-00070-00	Sealant	AR	C-251
2230-00559-00	Primer, Epoxy Polyamide	AR (1)	C-204

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# 2024 T3 Aluminum Stock (1"x1"x.25") AR (1)(2) N/A

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

### NOTES:

- 1. Only required if shim block is to be fabricated and installed, refer to accomplishment instructions.
- 2. If 2024 T3 aluminum is not available, 7075-T6/T62 aluminum may be used.

# SPECIAL TOOLS:

None required.

### WEIGHT AND BALANCE:

Not affected.

# ELECTRICAL LOAD DATA:

Not affected.

# **REFERENCES:**

None required.

# **PUBLICATIONS AFFECTED:**

None affected.

# ACCOMPLISHMENT INSTRUCTIONS:

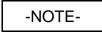
- 1. Prepare the helicopter for maintenance.
- 2. Gain access to the tail rotor driveshaft hanger bearing support (1, Figure 1) and locate brace assemblies (2).



Both the L/H and R/H brace assemblies are physically identical.

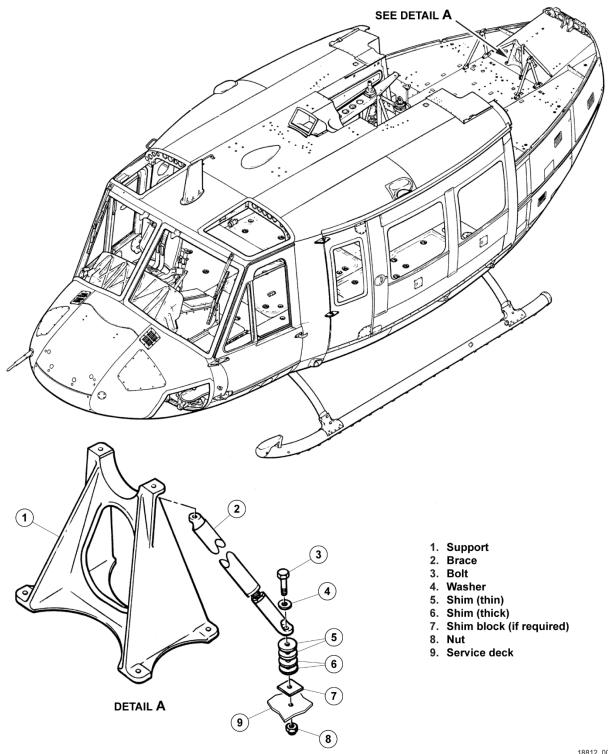
3. Check installed brace assemblies (2) for preload condition. Remove Sealant. Remove bolts (3) attaching brace assemblies (2) to service deck (9). If brace assembly (2) is properly adjusted, there will be no spring-back or hard contact with the service deck (9) when bolts (3) are removed. If spring-back is in excess of 0.020 in., or hard contact is evident, adjust brace assemblies (2) as follows:

- a. Adjust overall length of brace assembly (2) so that the bolt holes in the brace lower fitting and service deck (9) are aligned.
- b. Adjust thickness of peel shims (5 and 6) between lower ends of brace assemblies
  (2) and service deck (9), so there is no excessive spring-back or hard contact (preload).



Maximum amount of laminated shim permitted is 0.374 inch. If more shim is required, an aluminum block that can be locally fabricated and bonded to the service deck will be required. Do not exceed a total of 0.500 inch, combined laminated shim and aluminum shim block.

- c. If required, fabricate and bond aluminum block (7) as follows:
  - (1) Fabricate shim block from aluminum with dimensions as follows:
    - (a) 1.0" wide by 1.0" long by 0.250" thick
    - (b) Drill a 9/32" inch hole in center of block, deburr.
  - (2) Remove paint, dirt and primer from service deck and clean for bonding. Bond to service deck using adhesive C-317 and remove excessive squeezeout. Allow to cure for 24 hours.
  - (3) Prime all bare metal surfaces using C-204 and allow to dry.
- 4. After proper brace assembly (2) adjustment and shimming have been achieved, install bolts (3) attaching brace assemblies (2) to service deck (9). Torque nuts (8) to 50-70 in.-lbs. Seal all edges using sealant C-251.
- 5. Make an entry in the helicopter logbook and historical service records indicating compliance with this Alert Service Bulletin.



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Figure 1.