



A Textron Company

ALERT SERVICE BULLETIN

212-19-161

24 September 2019

MODEL AFFECTED: 212

SUBJECT: REDUCTION GEARBOX OIL TUBE ASSEMBLY
P/N 212-061-533-001, INSPECTION OF.

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

COMPLIANCE: **PART I:** Within the next 25 flight hours or 30 days
whichever occurs first after the release date of this
bulletin.

PART II: As instructed in the ACCOMPLISHMENT
INSTRUCTIONS.

DESCRIPTION:

Bell has recently been made aware of a possible fouling condition between the Reduction Gearbox (RGB) oil tube assembly P/N 212-061-533-001 and a screw that secures the oil cooler blowers compartment divider. If not addressed, excessive chafing damage could lead to a loss of RGB oil pressure. This bulletin mandates a one-time inspection for chafing damage and proper installation of the affected tube assembly. 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 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.

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Approved for public release.

CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Product Support Engineering
MEDIUM Tel: 450-437-6201 / 1-800-363-8028 / productsupport@bellflight.com

MANPOWER:

Approximately 2 man-hours are required to complete **PART I** of this bulletin if a low clearance or fouling condition exists. If no low clearance or fouling condition exist, approximately 0.5 man-hour will be required. Approximately 4 man-hours may be required to complete **PART II** of this bulletin depending on the changes required to install the oil tube assembly correctly.

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.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty (Note)</u>
212-061-533-001	Tube Assembly	1 (1)
NAS1149D0332J	Washer	A/R (2)
NAS1149D0363J	Washer	A/R (2)
MS21039-1-X	Screw	A/R (2,3)

NOTES:

1. Required only if chafing damage exceeds the limit provided in the "ACCOMPLISHMENT INSTRUCTIONS".
2. May not be required depending on findings and tube assembly installation changes required.
3. Adjust screw length as required.

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>
2010-07915-01	Sealant	6 OZ (1)	C-308
2100-00345-00	Alodine 1201	1 QT (1)	C-100
5060-60154-00	Aluminum Oxide Abrasive Cloth/Paper (9x11 Sheet)	1 (1)	C-406

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

NOTE 1: Quantity indicated is the format that the product is delivered in. Actual quantity required to accomplish the instructions in this bulletin may be less than what has been delivered. The product may not be required depending on findings.

SPECIAL TOOLS:

None required.

WEIGHT AND BALANCE:

Not affected.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

BHT-212-MM, Maintenance Manual Chapters 71 and 79
BHT-ALL-SPM, Standard Practice Manual, Chapter 3

PUBLICATIONS AFFECTED:

None affected.

ACCOMPLISHMENT INSTRUCTIONS:

PART I. Tube assembly inspection for chafing damage and proper installation.

1. Prepare the helicopter for maintenance and gain access to the tube assembly 212-061-533-001 located under the oil cooler blowers in the aft engine compartment (Figure 1).

2. Using a bright light source and a feeler gauge, inspect the tube assembly for chafing damage and proper clearance between the tube assembly and the screw/nutplate (Figures 1 and 2). The maximum damage allowed is 0.003 inch (0.076 mm) and the minimum clearance required is 0.060 inch (1.52 mm).
 - a. If no chafing damage exists and the clearance meets the minimum required, no further action is required. Go to step 3.
 - b. If no chafing damage exists but the clearance is less than the minimum required, carry out **PART II** within the next 100 flight hours or 90 days whichever occurs first after the accomplishment of **PART I**.

-NOTE-

Tube assembly removal may be required for chafing damage measurement and repair.

- c. For chafing damage less than or equal to 0.003 inch (0.076 mm), blend the damage smooth using an abrasive cloth or paper (C-406) 400 grit and apply chemical film treatment (C-100) as per BHT-ALL-SPM to the repaired area. Surface finish after repair should be restored to original.
 - d. Install tube assembly in accordance with **PART II** before next flight.
 - e. For chafing damage greater than 0.003 inch (0.076 mm) but less than 0.010 inch (0.254 mm), replace the tube immediately in accordance with **PART II** or accomplish step f.
 - f. Blend the damage smooth using an abrasive cloth or paper (C-406) 400 grit and apply chemical film treatment (C-100) as per BHT-ALL-SPM to the repaired area. Surface finish after repair should be restored to original. Replace the tube assembly in accordance with **PART II** within the next 100 flight hours or 90 days whichever occurs first after the accomplishment of **PART I**.
 - g. If chafing damage exceeds 0.010 inch (0.254 mm), replace the tube assembly and install in accordance with **PART II** before next flight.
3. Make an entry in the helicopter logbook and historical records indicating findings and compliance with **PART I** of this Alert Service Bulletin.

PART II. Tube assembly P/N 212-061-533-001 installation.

-NOTE-

The minimum clearance required between the tube assembly and the screw/nutplate after installation is 0.060 inch (1.52 mm).

1. If not previously accomplished, prepare the helicopter for maintenance and gain access to the tube assembly 212-061-533-001 located under the oil cooler blowers in the aft engine compartment (Figure 1).
2. As required, reposition the clamping and the tube assembly to obtain proper clearance. The screw length may be reduced if required and washers NAS1149D0332J or NAS1149D0363J can be installed between the structure and the attaching clamps to obtain proper clearance.
3. If new holes are required to relocate the clamps, the holes that are no longer required must be plugged with sealant (C-308). Changing the clamp locations will require removal of the exhaust ejectors and oil cooler blowers. (BHT-412-MM Chapters 71 and 79).
4. Make an entry in the helicopter logbook and historical service records indicating findings and compliance with **PART II** of this Alert Service Bulletin.

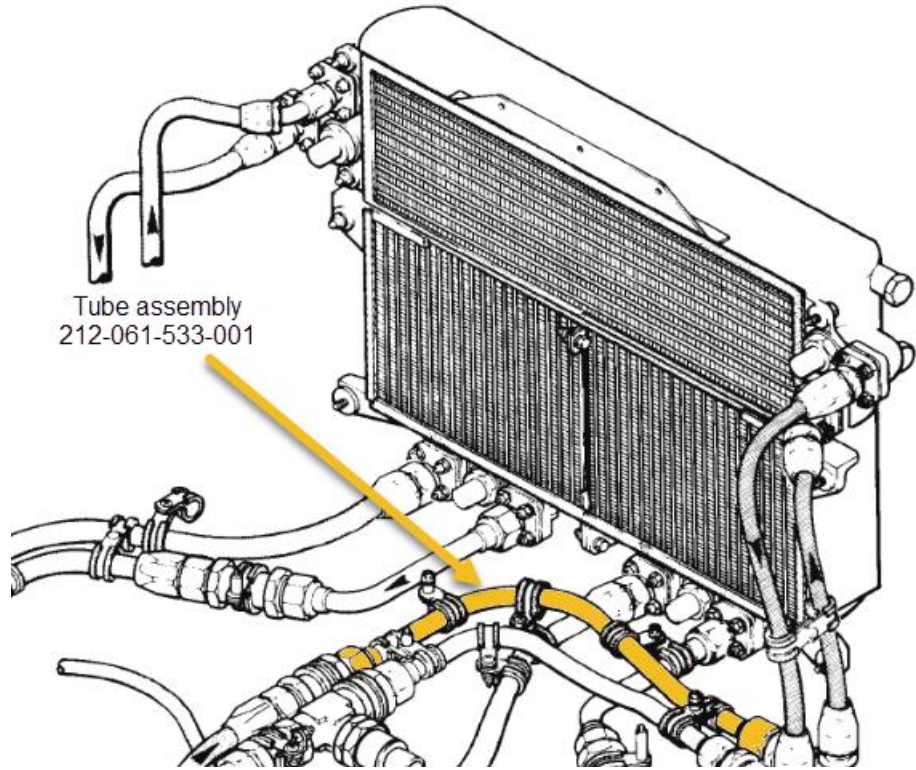


Figure 1. Tube assembly 212-061-533-001 location.



Figure 2. Tube assembly supporting clamps and possible fouling area.

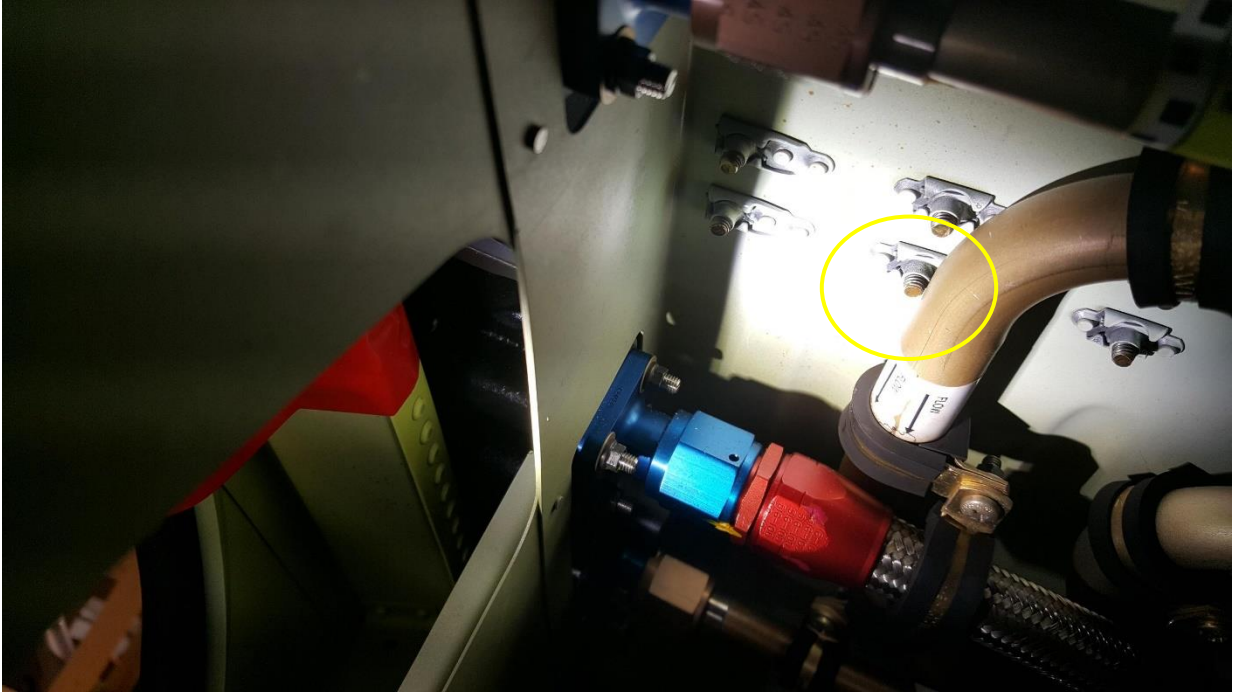


Figure 3. Example of low clearance and fouling condition.