Bell Helicopter
A Textron Company

ALERT SERVICE BULLETIN 412CF-15-57

PSL 7000000124
4 September 2015
Revision A, 6 October 2017

MODEL AFFECTED: **412CF**

SUBJECT: **ENGINE OIL CHECK VALVE 209-062-520-001, INSPECTION AND REPLACEMENT OF**

HELICOPTERS AFFECTED: **Serial numbers 46400 through 46499.**

COMPLIANCE:

Part I: Within the next 25 flight hours after receipt of this bulletin but no later than 30 days after bulletin release date.

Part II: Within the next 300 flight hours after accomplishment of **Part I** but no later than 90 days after completion of **Part I**.

Part III: No later than 180 days after completion of **Part II**.

DESCRIPTION:

Bell Helicopter found that some engine oil check valves 209-062-520-001 sold as spares replacement may have a condition induced during the assembly that can cause cracking of the valve body and oil leakage. This Alert Service Bulletin mandates a one-time visual inspection for condition, a date code verification, and replacement of affected check valves. The affected check valves were manufactured between October 2011 and March 2015.

If the original release of this bulletin has been accomplished, revision A does not require any action. Revision A of this bulletin clarifies which check valves are affected. Regardless of the manufacturing date, valves having the marking “TQL” adjacent to the manufacturing date code are not affected by this bulletin.

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.

CONTACT INFO:

For any questions regarding this bulletin, please contact:

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

MANPOWER:

Approximately 2 man-hours total are required to accomplish both **Part I** and **Part II** of this bulletin. One man-hour per valve is required to accomplish **Part III**. This estimate is based on hands-on time and may vary with personnel and facilities available.

WARRANTY:

Owners / Operators of Bell Helicopters who comply with the instructions in Part I & Part II of this Bulletin within the compliance time frame will be eligible for the labor entitlement indicated below. For engine oil check valves affected by this bulletin and need to be replaced in accordance with Part III of the bulletin, Owners/operators of Bell Helicopters who comply with Part III within the compliance time frame will be eligible for part(s) as applicable within this bulletin and labor entitlement as indicated below.

Bell Helicopter has recently introduced enhancements to the VISTA Portal which allocates specific warranty entitlement for an aircraft by serial number. The Product Service Letter (PSL) number which will be listed below the bulletin number on the introduction page is going to be a required field when submitting a claim for replacement parts, labor, and/or freight. If you receive an ASB or TB that does not have a PSL number, then there is no warranty entitlement for that bulletin.

Labor entitlement: Yes	PART I :	$85.00	USD
	PART II :	$85.00	USD
	PART III:	$85.00	USD (1 valve)
	PART III:	$170.00	USD (2 valves)

To receive parts, labor, and/or freight under warranty:

- Comply with the instructions contained in this Bulletin no later than the applicable date in the “compliance section”.
- If there is a PSL number identified in the bulletin you will be required to enter this PSL number which will validate warranty entitlement for the selected aircraft. Please ensure that you use the Bulletin tab on the warranty section in VISTA to file your claim.

NOTE: Customers who fail to comply with the instructions in this Bulletin before the compliance date are not eligible for the special warranty listed above.

MATERIAL:

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

Part Number	Nomenclature	Qty
209-062-520-001	Oil check valve	A/R

Note: One check valve is installed per engine. Replacement will be required only if the valve is affected by this bulletin.

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 Helicopter Textron Supply Center.

Part Number	Nomenclature	Qty	Reference *
Refer to the BHT-Consumable List	Engine oil	A/R	C-010 or C-011

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

SPECIAL TOOLS:

None required.

WEIGHT AND BALANCE:

Not affected.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

C-12-146-000/MF-001, Maintenance Manual

PUBLICATIONS AFFECTED:

None affected.

ACCOMPLISHMENT INSTRUCTIONS:

Part I. One-time check valve inspection for condition.

1. Prepare the helicopter for maintenance and gain access to the engine oil check valves. The check valves are located in the reduction gearbox compartment under the oil coolers (Figure 1, Details A and B).

2. Without removal, visually inspect both check valves for condition. Figure 1, Detail C shows a cracked check valve.

3. If a cracked valve is found, replace the defective check valve before next flight.

4. If no anomaly is found, make an entry in the helicopter records indicating findings and that **Part II** requires accomplishment within the compliance time allowed by this bulletin.

Part II. Manufacturing date code verification.

1. Prepare the helicopter for maintenance and gain access to the engine oil check valves 209-062-520-001.

2. The oil check valves do not require removal for manufacturing date code verification. The oil line “B” nuts and the clamp screw can be loosened to allow rotation of the valve for visual access to the marking.

-NOTE-

Only oil check valves 209-062-520-001 manufactured by Circor Aerospace marked “Circle Seal” and having a manufacturing date code 10/11 (October 2011) through 03/15 (March 2015) inclusively, are affected. Regardless of the manufacturing date, check valves manufactured by Circor Aerospace having the marking “TQL” adjacent to the manufacturing date code are not affected (Figure 1, Detail C).

3. In reference to the note above, determine which check valves will require replacing.

   a. Only oil check valves 209-062-520-001 manufactured by Circor Aerospace marked “Circle Seal” and having a manufacturing date code 10/11 (October 2011) through 03/15 (March 2015) inclusively will require replacing in accordance with **Part III** of this bulletin. If the valve is marked “TQL”, it is not affected.

4. Make an entry in the helicopter records as applicable to the following sub step a or sub step b.

   a. If there are affected valves, make an entry in the helicopter records indicating findings and that **Part III** requires accomplishment within the compliance time allowed by this bulletin.

   b. If the check valves are not affected, make an entry in the helicopter records indicating findings and compliance with this Alert Service Bulletin.

Part III. Oil check valve replacement.

1. Prepare the helicopter for maintenance and gain access to the engine oil check valves.

2. Refer to the applicable Maintenance Manual and replace affected oil check valve.

3. Make an entry in the helicopter records indicating compliance with this Alert Service Bulletin.

Detail A

Detail B

Detail C

Detail D

Figure 1. Oil Check Valve Inspection